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The AMERICAN ENGINEER

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NOVEMBER, 1944

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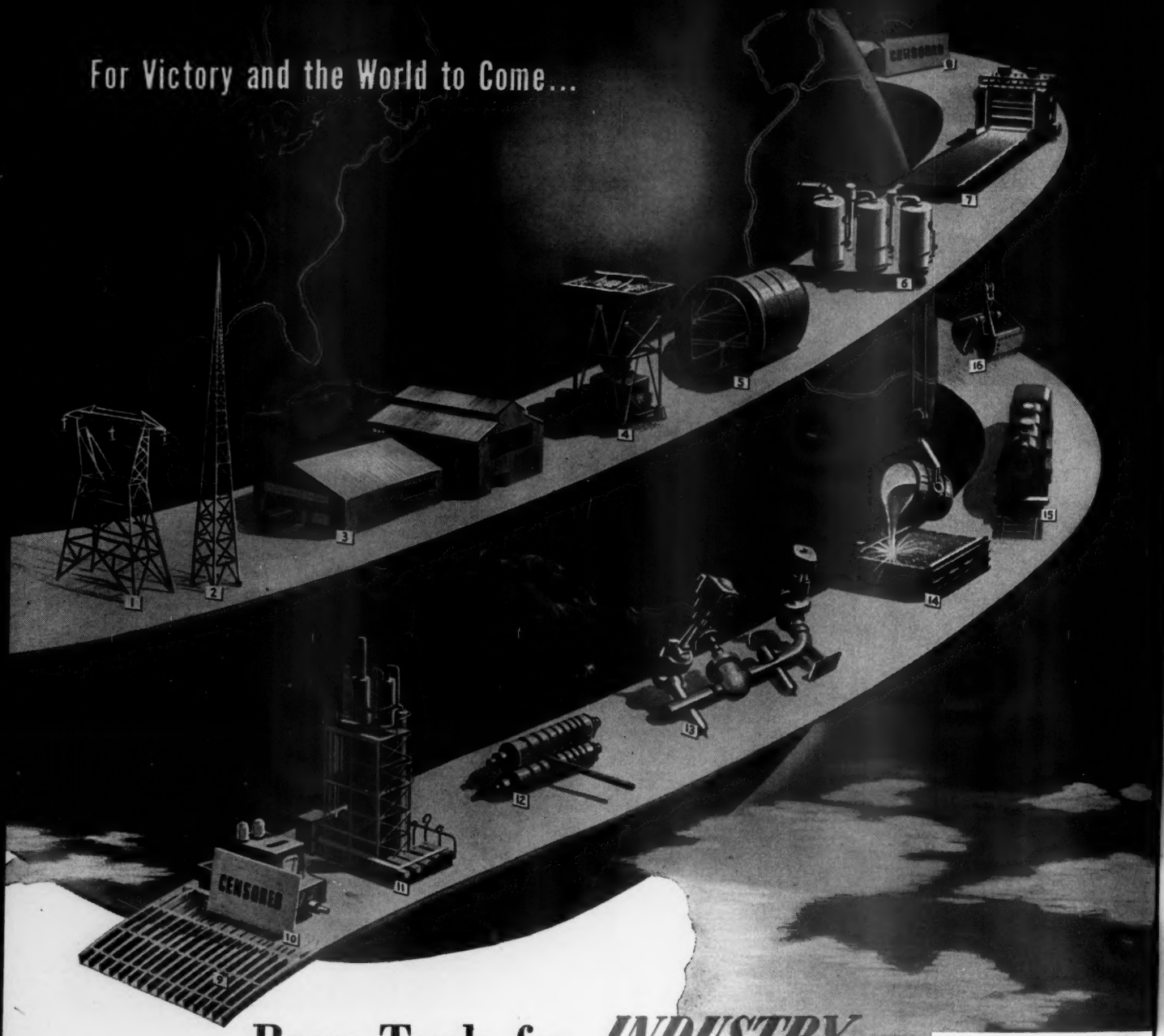

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THE AMERICAN ENGINEER

VOLUME 14, NUMBER 11 NOVEMBER, 1944

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To the Members of N.S.P.E.

WHY REVISE OUR CONSTITUTION?

By President H. E. Nold

For more than two years the Board of Directors of N.S.P.E. has realized that our society has outgrown its constitution. In 1943 the committee on Constitution and By-Laws was instructed to prepare and submit for approval a revision of the constitution which would enable the society to operate more effectively. In general the committee faced the following problems — (a) limit the revised constitution to fundamental principles which are (1) required by law and (2) needed to clarify and control the basic organization and operation of the society; (b) correct certain defects in the present constitution; (c) provide for by-laws to cover details of operation and procedure. (Note—Our society has never had a set of by-laws.) The committee submitted a tentative draft of the revised constitution to the Board at its meeting at Milwaukee, in May of this year. This preliminary draft, after about three hours discussion by the Board, was re-committed with suggestions and recommendations. Draft No. 2 was submitted to the Board, by the Constitution Committee, at Lexington, Kentucky, on September 9th. After careful consideration the Board approved the second draft, with a few minor changes, for submission to our membership for approval or disapproval by letter ballot.

Our members should know that the constitution committee sought competent legal advice and it is thought that the proposed revised constitution is, in every respect, in accordance with the law and our Articles of Incorporation.

Before registering his vote on the revised constitution, each of our members is urged to compare it, item by item, with the present constitution and to keep in mind both the present and anticipated needs of our organization.

The more important changes recommended are—Article III—Sec. 1—Require twenty instead of ten professional engineers as the minimum for the formation and chartering of a Member State Society. This change is recommended because experience has shown that ten is too small a number to operate effectively as the nucleus of a new society. The smallest of the four new member state societies chartered during the past fifteen months had more than thirty charter members. Article IV—Sec. 4—Provides for the expulsion of a member from the society for cause. Article V—Sec. 1—Provides maximum dues within which limit the amount of dues of the National Society shall be determined by the Board of Directors. This is in accordance with the principle adopted in the constitutions of the four new societies above mentioned. Approval of this principle of allowing the Board of Directors to fix dues within a constitutional limit is thought to be sound and when adopted will make possible more effective operation and insure greater service to our membership. Our society is afflicted with "growing pains". The present dues of $4 per member fixed by constitution, do not provide enough revenue for continued operation even without expanding our activities.

Due to lack of funds the work of editing the American Engineer has heretofore been and is now being done on an entirely free, voluntary basis. The work of the editor of a monthly magazine is too much to expect any man to do as a work of love. Very soon we must assume the cost of a paid editor with an office and stenographer at our national headquarters in Washington, D. C.

The Board of N.S.P.E. has long realized that proper service to our members demands that more attention be given to national legislative activities affecting Professional Engineers. No more can be done without additional help. The national board has had to refuse to attempt Federal legislative analyzing and reporting activities requested by member societies because of lack of funds. The legislative committee of N.S.P.E. submitted a report to the Board at the September 1944 meeting, which showed a minimum additional annual cost of $19,800, to properly handle the work entailed in establishing and carrying on legislative activities and services on the national level, desired by our members.

The above are but two of a number of services that the society should give its members, but which are now impossible due to lack of funds.

Preliminary board discussions indicate that N.S.P.E. dues will probably be raised from $4 to $6 as soon as practicable after the new constitution is approved. This new article V, dues, is one of the very important parts of the new constitution. Article VI—Sec. 4—Provides for and instructs the Board of Directors to prepare and adopt a series of By-Laws, which shall govern all procedures under the constitution. By-Laws are, according to legal advice, lawful and allowed under our Articles of Incorporation. We have never had By-Laws. We need them, Article VI—Sec. 5—Is new and provides for an Executive Committee. The need of such a committee seems obvious. Article VII—Sec. 2—Provides for a procedure which it is believed. will be an improvement over the present method of selecting a Nominating Committee.

Details such as quorum, duties of officers, meetings, committees and their duties, order of business, etc. are to be covered in By-Laws as provided for in Article VI—Sec. 4.

Your President believes that the adoption of the revised constitution will lead to materially improved services to our members and the development of a better and stronger society.

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THE PROFESSIONAL MAN
HIS OBLIGATION TO SOCIETY
REQUIRES INTEREST IN AND CONCERN FOR SOCIAL AND ECONOMIC AS WELL AS PHYSICAL PROBLEMS OF NATION

BY PRESIDENT MILTON S. EISENHOWER
Of Kansas State College

Note: The address of President Eisenhower which is reproduced herewith, was delivered at the induction of the Kansas Society into the membership fold of N.S.P.E. Although not an engineer, the speaker effectively pleads for the engineers' tools and methods in approaching the solution of the complex social and economic problems facing the nation and to a large extent those of society as a whole.

I am deeply impressed by two statements in the constitution of your Society. You declare that engineers develop a civic consciousness and should devote their creative talents to the advancement of the general welfare.

The attainment of those two objectives would contribute a great deal to the preservation of democracy in the United States and would help establish democracy throughout the world. Hence, what I have to say tonight is in the nature of prolonged applause for the sound thinking you employed when you formulated those objectives for your profession.

While you have compartmentalized yourselves into civil, mechanical, electrical, chemical, aeronautical, radio, and many other kinds of engineers, you are fundamentally a single professional group with an important common denominator.

That common denominator is, it seems to me, a devotion to the engineering method. All true engineers, regardless of subclassification, begin with an enormous respect for relevant facts. Out of that respect and your disciplined training flow habits of accuracy, thoroughness, analysis, judgment, and integrity. By employing the engineering method, you continuously derive your conclusions from the facts, not from mere opinion, guesswork, or prejudice.

Organized society is constantly confronted with new problems and with the necessity of solving those problems. So is the engineer. But you insist upon using scientific methods in arriving at your ultimate judgments and you therefore enjoy a high degree of success in solving the problems before you. Organized society sometimes employs less tenable methods, with disastrous results.

There is no magic in your ability to solve problems. That ability is the result of careful training. There is no magic by which society can solve its difficult problems. In their solution, society can use very nicely, if it can only learn how, a generous amount of the engineering method.

Of course, one can go too far in comparing your genius to that needed by society as a whole. You have applied your talents largely to the solution of physical problems. The great problems of society are no longer physical ones. Yet, with the distinction recognized, I repeat that the same accuracy, thoroughness, analysis, judgment, and integrity that characterize your handling of physical problems simply must come into society's handling of the great social, economic, and political problems of our day. At no previous time in history was this so true as it is now.

Indeed, we have reached the point where the solving of physical problems seems to multiply social ones. The machines of man will destroy us, unless we learn to use them with greater wisdom than has come to us thus far.

But I shall carry us into vague generalities if I proceed very far by pure argument. So I am going to bring this discussion down to reality where it deals with the people and the institutions that make our society and that shape society's problems.

II

During the past year I have spent as much time as I could on Kansas farms and in factories, talking about our common future with hundreds of farmers, industrialists, workers, tradesmen, professional men and women, and others.

All my discussions may be summarized in terms of a visit to one town in Southern Kansas.

The town is neat and friendly in appearance. The streets are wide and clean, the buildings modern. There are good churches and secondary schools and a modern-equipped high school in this community of ten thousand. I visited a packing plant, a foundry, a plant that manufactures water coolers, a tiny factory that produces precision instruments of many kinds. Good crop and grazing lands surround the town and many of the farms are electrified.

Before the war, the people of this town felt that they were steadily progressing toward the good life. They did not like some of the social devices that were being employed to promote national and local stability and they felt free to criticize, but on the whole they believed they could weather temporary mistakes and keep marching

toward their goal. They were at peace, they got along well together, they enjoyed many cultural advantages, and they were certain their children would ultimately enjoy, in their town, still greater advantages and satisfactions.

Today, the people of that community are deeply troubled. The things they fashioned for peace are now being used in war. Their sons face enemy guns on the borders of Germany and in the far Pacific. Each family knows that it may receive saddening news from the front at any time. But there is a worry beyond this. The fathers and mothers of that town are wondering whether their sons can come back to it, find economic opportunity and peace, enjoy the freedom so bitterly won, and continue to march toward the goal of the good life.

The people of this town are doing a lot of thinking. The small industrialists realize that one necessity after the war will be a prosperous agriculture and prosperous consumers. For many of them must obtain a continuous supply of high quality products from the farms and they must sell their goods to Midwestern consumers generally, including farmers.

The farmers of the area know that there must be full employment in towns and cities. They have learned by bitter experience that their own products bring good returns only when consumers have the purchasing power to buy abundantly at reasonable prices.

The farmers of the community are comparing their present situation with that of the 'thirties. In the period before the war, when there was widespread unemployment, farm prices and income were unsatisfactory. Crop adjustments may have prevented disaster, as I'm sure they did, but they did not make agriculture profitable. Now, however, with farmers producing about thirty percent more than they did before the war and with about 88 percent of all that production being consumed by Americans, at home and in the armed services, farm prices are above parity and farm income is the highest in history.

And so the farmers and business men of this Southern Kansas community are taking a square look at the simple fact of our modern economic interdependence. As they look to the future, they realize that they must not plan in separate compartments, as if their interests were separate. Planning that is too narrowly compartmentalized ignores our interdependence and leads to misunderstandings, often to bitterness and strife. Bitterness and strife can lead, as it did in France before the war, to weakness, confusion, and inability to act.

Cooperative planning must be a continuous process, and it is imperative in a democracy. It must be continuous, because basic conditions change with bewildering rapidity. It is imperative because only if millions of individual citizens arrive at sound judgments in the complex days ahead —judgments that lead to constructive action—shall we keep democracy at all. This is not, I think, an exaggerated statement.

Democracy is a system which retains basic social power in the hands of the people generally, a power that is exercised by the people through some system of representation. Such a philosophy or system presupposes well-informed citizens, acting with fairness and wisdom on all the multitude of things affecting their nation. But if these human qualities do not prevail—if there is ignorance, confusion, neglect, or too much selfish action—then the people generally will not redeem their responsibilities and we shall lose democracy.

If there is neglect, confusion, indifference, too much selfishness, the people can, for example, surrender basic social power to a highly organized, alert, though small group of capitalists. They could just as readily surrender to highly organized labor. And, make no mistake about it, they could lose it to a highly organized, centralized government.

Now, we in America do not need to fear bigness. The engineer knows that. We think in big terms and we are accustomed to doing big things. But we must never permit the concentration of too much power in *any* hands for, human nature being what it is, concentrated power is inevitably a selfish or domineering power.

Bigness must be accompanied by two things: First, by a balance of power, so that no organized group in America can ever act selfishly in its own interest to the detriment of other interests, and, second, by a wide diffusion of responsibility among all the people.

A wide diffusion of responsibility requires widespread understanding of our basic problems, including a recognition of our intricate interdependence, and a willingness to work for the general welfare as well as for the welfare of a single group.

Can we achieve the essential understanding and agreement on complex problems in this rapidly changing world? I have said that farmers and business men alike want full employment. Can we plan cooperatively with respect to this *one* problem and arrive at a program that will assure full employment?

Most likely the employment problem, like so many others, will fall into three distinct time-periods. First will be the demobilization and retooling period, probably a period of temporary unemployment. Perhaps in that period a short-term works program will be needed to tide us over, for surely we do not want returning veterans to tramp the streets looking for jobs. There has been so much deterioration in our highways, schools, and other public buildings that I should think we could have State-sponsored short-duration works program to prevent temporary unemployment, without resorting to the made-work of the 'thirties.

A second period will not doubt develop when production of peace-time goods step up and enormous private savings are being spent. That will be a glorious though dangerous period, dangerous because we may then neglect some of the basic things that must be done to prepare for the third period.

For the third period will, it seems to me, bring the real test to our democratic system. With savings largely spent, we could again face unemployment, deflation, surpluses, and horrible economic loss. Such a period, considering for one thing the size of our national debt, might literally destroy our present economic system.

Surely there is not a man or woman in America who is not willing to do all he can to help avoid another crash.

Most thinking persons hope we can do so by wholly

democratic methods.

Now, for clarification, let us say that one great essential in avoiding another crash, one great essential in maintaining full employment at reasonable wages in the United States, will be a healthy, very large foreign trade. A foreign trade program might require, let us assume, international currency stabilization, greatly reduced tariffs here and elsewhere, the creation of a quasi-public export-import corporation, a redistribution of gold, a greatly expanded import program, and many other things.

The question, then, will be: Will the people generally understand the basic facts in our new situation, and plan and act accordingly? Can we get agreement on a program of appropriate action, that gets results and that also maintains a balance of power in our economic and political life and promotes the widest possible diffusion of responsibility? Or out of confusion and quarreling and bitterness will we abdicate to a higher power which may not know the answers any better than we and which, in any case, is almost certain to act as it thinks best, regardless of your views and mine?

On one point we must all be clear: Never again in the United States will we tolerate widespread, prolonged unemployment. Even farmers, individualistic and conservative as they are, say that full employment must be maintained. They hope most sincerely that employment may be one of the fruits of the American system of free enterprise. But if for any reason this great system of ours fails to get results, farmers then believe that the government should provide the essential jobs. This is what recent surveys show.

Repeating, then, the question is whether the people generally, adequately informed and acting with understanding, determination, and fairness, shall retain basic social power and redeem it, or whether a highly organized group will shape and manage the program.

The first is the democratic way. The second would mean actually, though possibly not in legal form, the loss of democracy, the very thing we are fighting to save.

III

But here one may well ask, "Why, since democracy functioned so well in the past, is there really any question about it now?"

Well, the greatest difference is just the difference between the quality of citizen-thinking in a simple, fairly self-sufficient economy, on the one hand, and in a terribly complex, intricately interdependent economy, on the other.

Within a single generation we have seen specialization grow from small beginnings to a frightening climax here and elsewhere in the world. No longer is our principal economic act that of trading eggs for sugar and salt. Gone are the days when production alone was the great problem and when each citizen personally participated in most cooperative affairs, understood them, and arrived at judgments as broadly as was required. We live in a day when exchange and price are as important as production. Each specialized field has become so complex that most of us do well to understand activity and needs within that single field.

Specialization is a narrowing experience. Each specialized group finds it difficult to understand the problems, aspirations, and methods of other groups. Farmers may fail to understand labor; indeed, there may be discord between farmers and workers, despite their economic interdependence. Regional groups may intensify their misunderstandings, as may groups of professional men, such as the physical scientists and the social scientists. One group, viewing its own troublesome problems, may seek the aid of government, but often that same group objects warmly to similar government aid for other economic groups. In my 17 years' experience in Washington, however, I never saw an economic or pressure group ask for the elimination of its own governmental benefits.

Within this generation of growing specialization, other fundamental changes have occurred. We became a creditor nation, a change so overwhelming that much of our economic thinking is still that of a debtor. As a debtor, we had a fairly automatic outlet for such surpluses as we produced. The farmer had his ups and downs, to be sure, but he usually solved his trouble by shifting his production from an unprofitable to a profitable crop. Business and workers had temporary troubles, too, but permanent unemployment was not threatened. Then we came to a day when the rest of the world owed us money and was not especially anxious to take our surpluses. For the first time, all crops became unprofitable and permanent unemployment seemed to be avoided only by war production. We came to a day when individual shifts would not suffice, to a day when cooperative action by industry and agriculture became imperative within this free system of ours.

During this same generation, the physical land frontier in America was closed. Today we cannot afford the reckless trial and error methods that characterized the development of American agriculture. It is no longer possible to ruin one piece of land, put the wife and kids in a wagon, and move to a new, richer piece of land. There isn't any more land to move to. We now have to live with what we have. Yet today, if you fly over this country you can see millions and millions of acres of permanently-ruined lands, and millions and millions of other acres wasting away — this, despite all the subsidies for conservation in the 'thirties and 'forties.

And during this same generation, the miraculous development in the field of communications — from airplane to radio — and the continued developments in production which led many nations to compete both fairly and unfairly for foreign markets, made of this truly *one* world, a world in which injustice or violence in any part, if prolonged will engulf us all.

This very war is proof of the oneness of the world, for if there was ever a war in history which resulted from the differing ideologies of the masses of the people, this is surely that war. We are, in a very real sense, experiencing a world Civil War.

This war is greatly enhancing our creditor position. Today, most of the remainder of the world owes us money. Yet we have a good share of the world's gold, and we are the only nation on earth that produces both industrial and agricultural surpluses. Great Britain and Europe normally produce an excess of industrial goods, but import agricultural goods. South American countries do just the oppo-

site. We produce surpluses of both. Hence, we face very special problems as we seek a large volume of world trade when the war is over. We can do it for a time by repeating the disastrous mistakes of the 'twenties — by essentially giving other countries the capital with which to buy our goods. Perhaps a sensible alternative lies in undertaking a program of importing needed goods that will yield to other countries the necessary dollar exchange which they can use to buy from us.

These four great changes, from among many others that might be mentioned, emphasize that we cannot plan for the future within the factual framework of the past. To say that democracy will always prevail merely because we have had it for a long time is merely to close our minds to the enormous changes that are constantly sweeping around the world. In a democratic country, where basic social power must be retained by the people and where a wide diffusion of understanding and responsibility are imperative, the greatest single danger is that *a continuing mental lag will cause us to plan for the future within an obsolete framework.*

But let me at once express a personal faith. There may be places in the world where people, facing modern complexities, are willing to abdicate intellectually and actually. We are not willing to do that; we will not so abdicate. A people that fought for and gave birth to freedom, a people that preserved their union in the face of the most bitter intellectual division, and a nation that came from behind in this mechanized, technological age to win a war against prepared enemies, is not going to shrink from the job ahead.

Our first task, like the engineer's, is to get agreement on the *facts* of our new situation. It is futile to try to agree upon plans and policies unless we can first of all agree upon the relevant facts. Indeed, all human agreement, between individuals, groups, and nations, must spring from agreement upon the facts — all the facts — basic to a program of action.

We cannot get the necessary agreement if each specialized group in our society does its planning in the light of only those facts which seem relevant to its particular compartment or interest-sphere in our society. That is why I am so encouraged by the work of the National Planning Association, the Committee for Economic Development, committees of the National Association of Manufacturers, and other groups. These committees are bringing together farm and labor leaders, manufacturers, capitalists, and others; they are agreeing upon the basic facts about foreign trade, agricultural production, distribution, and income, labor and employment, debt and taxation, they are publishing these agreed-upon factual analyses and are distributing them widely. These groups, once so agreed, are also moving toward proposed plans of action; every such plan is designed to function within the American system of individual freedom and initiative, though all recognize the need for cooperative action within our free system.

I am equally encouraged by the cooperative planning at Albert Lea, Minnesota, for two reasons: First, it demonstrates a community's determination to solve its own problems. Second, the Albert Lea efforts are being studied by community leaders all over this country and hundreds of communities are undertaking a type of planning suited to their conditions.

As I said in the beginning, here in the Midwest we see some of the elements of our modern interdependence and the need for cooperative planning in every hamlet, community, county, State, and region. We are not waiting for powerful national groups, governmental or otherwise, to prepare all the answers for us.

We realize we have some tough problems ahead. In Kansas alone, 220,000 young men and women will soon, we hope, leave war services and industries. They will want jobs on the land or in private industry. Farming can absorb some, but not too many. Existing industries can absorb some more, but not all. So we see the need for greater industrialization.

This poses plenty of problems for us in cooperative planning and will require sound analysis, clear thinking, and vigorous action. For example, we need to have enough wisdom and fairness to promote industrial development without building up the management-worker difficulties that plague other areas. This may require a wide diffusion of small industries, with well-paid workers who become home owners and civic leaders the same as other citizens. The newly organized Midwest Research Institute, the Kansas Industrial Development Commission, and many other agencies and groups are on the firing line to help develop sound industrialization in this area. We must discard the haphazard methods of the past and go at the problem with the same care you use in the engineering profession.

Hasty efforts in the past have often failed to bring small, decentralized plants of some of the larger American concerns to this region. Many people have therefore become discouraged. But an analysis of past trends shows that some types of large industry have found decentralization to be economical for the long-pull while others have found precisely the opposite. Concentrating our efforts on the right industries will pay dividends. A second opportunity exists in the general field of new industries, such as the plastics. Our great resources, including cheap energy such as gas, should enable us to develop our share in this field. And third, since transportation costs will always be with us, there is plenty of opportunity for the development of small independent plants which produce the same kinds of goods as are produced by the large industries. A number of small foundries have succeeded for years in the Midwest for example.

Even if the population of the Midwest should become stationary, we would constantly need new types of industries For increased efficiency in farming and in industry constantly makes possible the production of a given volume of goods with the employment of fewer and fewer men and women. In Kansas recently I saw a great war plant employing only 200 workers on each shift, turning out a quantity of a vital product that a few years ago would have required thousands of employees. That plant is so highly mechanized that the most difficult job in it involves a man who watches a pressure gauge and adjusts it oc-

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INTER-PROFESSIONAL RELATIONSHIPS

N. S. P. E. AND OTHER ENGINEERING SOCIETIES

MINNESOTA PUBLIC POLICY COMMITTEE

ISSUES REPORT AND ARGUMENT

THROUGH CHAIRMAN EARL EWALD

EARL EWALD
Chairman Minnesota Soc. Committee on Public Policy

Note: So far as the American Engineer is aware, Minnesota is the only State Society having a Committee on Public Policy. Perhaps it corresponds to a Committee on Public Relations, common to other Societies. In any event it is proceeding with the customary Minnesota reputation for activity. A good committee needs no instructions. It finds its sphere of action and proceeds. This report exemplifies such a committee.

Engineers throughout the country are awakening to a consciousness of the need for an organization of the professional group devoted to its common advancement and its social duty. Recent actions by established societies and new special groups in endeavoring to safeguard the interests of engineers under the labor laws have accentuated both the need for action and the requirement that the entire profession act together.

This widespread awakening is reflected in the "letters to the editor" of all the engineering publications; it is recorded in the actions of the boards of direction of the Founder's Societies as well as their numerous special study committees; and it is notably evident from the work and program of the Engineers' Council for Professional Development, " . . . a conference of engineering bodies organized to enhance the professional status of the engineer through the cooperative support of those national organizations directly representing the professional, technical, educational, and legislative phases of an engineer's life".

From its own published statement also quoted in the preceding paragraph, "E.C.P.D. is primarily a conference which studies and recommends, counsels, and guides, rather than an agency for administration of details . . . ". Its general objective " . . . is the enhancement of the professional status of the engineer. To this end it aims to coordinate and promote efforts and aspirations directed toward higher professional standards of education and practice, greater solidarity of the profession, and greater effectiveness in dealing with technical, social, and economic problems. An immediate objective is the development of a system whereby the progress of the young engineer toward professional standing can be recognized by the public, by the profession, and by the man himself, through the development of technical and qualifications which will enable him to meet minimum professional standards." The four point program directed toward attainment of the immediate objective is outlined by four standing committees named, Student Selection and Guidance, Engineering Schools, Professional Training, and Professional Recognition.

There can be no disagreement with these objectives, but for an evaluation of the effectiveness of the organization, let us look to the words of Robert E. Doherty, a former chairman, who is now President of Society for Promotion of Engineering Education. The following paragraphs are taken from the August 1944 American Engineer which quoted the Journal of Engineering Education:

"The second lesson of the war is that the engineering profession found itself near complete paralysis when there was need for unified action on matters of common in connection with the war effort. As a member of the Engineers' Council for Professional Development for six years, during the last three of which I was chairman, I had first hand experience in this matter. The problem was of course not new. The practical inability of the several branches of the profession to act in a common cause is traditional; merely, the fact that they could not effectively unite for common action in war indicates the depth of the malady. The tradition of isolation is understandable in light of the history of the successive beginnings and independent growth of the several branches of the profession. But the world moves on; change is inevitable, even in the engineering profession. While I make no predictions as to the specific nature of the evolution of the profession, especially of its organization, I do venture to predict that there will be—must be—change in point of view. The engineering profession must rise to a new level. That is our lesson from war.

"In the first place I must raise the old question, 'What is the engineering profession"?

"Thought on this question is extremely confused. To mention one evidence, The E.C.P.D. Committee on Professional Recognition, after some ten years of futile effort to establish criteria of recognition, gave up this direct line of attack and turned to the engineering colleges in the hope of developing in the new generation a reasonably clear professional purpose—a professional consciousness and like-mindedness — that the present generation of engineers do not have. Engineers are

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GRATIS ENGINEERING SERVICES

NEITHER ETHICAL NOR PROFITABLE

FREE DESIGNS AND INSTRUMENTS ARE INIMICAL TO CLIENTS' INTERESTS

PRACTICE SHOULD BE ELIMINATED

BY F. H. VALENTINE — *Consulting Engineer*

Is the practice of material manufacturers, contractors and others rendering gratis engineering services, ethical, fair and profitable? I particularly refer to the free designs and surveys offered in connection with structural, heating, air conditioning, boiler plant, sanitary and electrical systems of buildings. There probably is no other branch of the engineering profession more misused and less thought of than these important phases of building construction.

There are many serious reactions from this business of free engineering, too numerous to mention here. Foremost, is the effect upon the present private practicing engineer doing business and upon the young engineer who would like to choose these phases of engineering as a profession and start up in business for himself as a practicing engineer.

In my opinion, rendering free (?) engineering by any party or person is a particularly unfair practice which should not be tolerated by Professional Engineers. The proper design and application of these engineering features as applied to building construction directly affect the safety, comfort and health of the occupants of these buildings, hence the importance of competent engineering design is apparent from the safety as well as health standpoint rather than from any material or contracting sales standpoint.

It does not require much study to show that such practice is wrong as well as non-profitable, because no engineering service can be rendered without cost to somebody, unless it is paid for by the Owner unknowingly in the material costs used on the project, for the service can presumably only be offered for the single purpose of selling some particular article of manufacture or service, and it is equally evident that such practice is not only unfair from the standpoint of the Professional Engineer in private practice who depends on this business for his existence, but it deprives the Owner of the judgment of an impartial advisor working in a professional capacity for the best interest of the Owner.

There seems to be no working agreement between engineers, architects, contractors and manufacturers interested in the building industry, whereby each of these branches might be confined to its own particular field with better economic results to all. In this connection, we find that the services of the private practicing engineer are too seldom employed. Why? Because some of the work, not being done by practicing engineers, is being done gratis by manufacturers or contractors, principally under what they believe to be a good and economical business proposition for themselves or they feel that their competitor will do it if they do not.

In the first place, the material manufacturer, if he prepares plans and specifications for any of this engineering work gratis or makes surveys of Owner's properties, must naturally render this service for no other compensation than what can be added to the cost of materials that can be used on the project, likewise, the contractor must render this service with only the hope of securing the contract in return for this service.

Professional engineering has the same basic principles found in any other business and consists of judgment, policies, experience and technical as well as practical knowledge, which must be incorporated in the planning of and writing specifications for the engineering features embodied in the building structure. These sciences constitute a specialty in themselves, which has required many years of study and practical experience on the part of the practicing engineer. For these qualifications he should be paid a fair and equitable fee, but under present competitive conditions, of many offering to render these same services gratis or at unreasonable low fee charges, he is often forced to do engineering work for less compensation than will provide for its being done properly, resulting in many engineers, sacrificing their own reputation, the high standards of the profession and the interest of the work as a whole.

How to eliminate these abuses is the question. Now is an opportune time, when building restrictions on priorities for building materials and equipment are being eased and removed and when building business is starting on the up grade, to give consideration to the justice of this desirable reform. A united effort on the part of the Professional Engineer's Societies, National, State or even local, would seem to be effective. I am firmly of the belief that there is a benefit to be gotten out of this by mutual cooperation between the material manufacturer, contractor and the professional engineer and that such cooperation will produce results which will accumulate for the good of all the allied professions. Surely there is a way out, a legitimate way, one that could not be considered from any standpoint except fairness to all concerned.

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ENGINEERS OF THE FUTURE
AND
THE FUTURE OF PROFESSIONAL ENGINEERS

BY A. H. OKUN — *Consulting Engineer*

Note: The following is reproduced as an expression of personal opinion and comment. Certain recommendations are omitted because they are wholly inconsistent with the professional objectives of N.S.P.E.

During recent years, when Engineers in civilian practice were idle, our professional magazines filled their pages with rosy pictures of the future, interpreted the duty of the Engineer to Society, and prescribed the "Oath" that the Engineer should take before he can consider himself as Engineer. On the other hand there have been no signs of a really constructive movement to give to the practicing engineer a feeling of leadership, of dignity and of security; nor has such an endeavor been made during the thirty-one years of the writer's association with the profession.

Now, years after the organization of our Professional Society, to which "twenty six state organizations with their chapters belong—resulting in hundreds of officers and directors" we find that not enough interest is indicated by the rank and file of the membership, to fill the two dozen pages of our Journal with lively discussions of the professional and financial status of our calling, and the means for its immediate betterment. This in itself points to an unhealthy symptom. The inference is plain—stagnation—lack of interest on the part of the general membership in the outdated policies propounded by our leadership, which does not excite the imagination nor the interest—either for or against—the policies propounded by them.

To perceive the basic reason that underlies this situation, we must take a "back-sight" and retrace the course of our development, so as to see where on our way to the present have we lost our previously high-held esteem. We must examine and determine whether the engineer as a social entity, has kept abreast of the socio-political development as differentiated from the technical.

It is well known that originally there were no well defined groups known as engineers. If a man had an aptitude for conceiving things, he was a builder, a master mechanic, an architect, etc.,—a sort of a good Man Friday who catered to his masters' will in executing their whims, be it a castle, a bridge, a monument, breakworks, or even a portrait. With the advent of the Industrial Revolution these combination Architect-Engineer-Sculptor-Artist-Scientist disintegrated. Having found sufficient work to keep themselves busy in one field, they gave up the "pure" arts and developed as engineers, ready at all times to devise means either to construct or destroy, even the work of other engineers. Within a comparatively short time, the field became too involved. Engineers had to divide their ranks into military and civil engineers. These civil engineers provided the brain work for all civil enterprises. Before long the geometric progression of inventions, compelled by the needs of ever expanding industry, forced the civil engineers once again to resolve themselves into two groups—civil engineers, to design stationary structures, and mechanical engineers, to evolve the machinery needed by industry.

It is a fact worthy of note, that in the main, it was not the professional engineer who has been responsible for the inventions that changed the complexion of our civilization. Engineers as a profession, instead of being leaders, became technicians who refined and resolved into mathematical formulae the inventions of others. The original bridge trusses were invented by carpenters, the first suspension bridges by savages. The steam engine, the cotton gin, the gas engine, the phonograph, the cinema, the motor, the automobile, the flying machine, etc., were all the inventions of lay-men. The telegraph was the brain child of an artist, the telephone was perfected by a linguist, the Imhoff tank by a physician, and the very tools of our profession, the mathematics and the pure sciences were the work of men outside of the profession.

Mechanical engineers in turn, confronted by the colossal development of industry and the deluge of new inventions producing fields undreamt of but three score years ago, had to break up once again into electrical, chemical, aeronautical, automobile and mechanical engineers. The civil engineers, likewise, had to specialize and have become railroad, hydraulic, sanitary and structural engineers. This specialization unavoidably forced engineers farther and farther apart, and in spite of our leaderhip's maintaining a fictitional unity of the profession, one and indivisible, we are confronted with an array of separate groups too fearful to behold. To cite: we have under one licensing law the following divisions of engineering, viz., air conditioning, automotive, aeronautical, architectural, acoustical, bridge, ceramic, chemical, civil, communications, combustion, dams, docks, electrical, elevator, electro-plating, foundations, fire-prevention, geodetic, geologic, heating, hydraulic, highway, industrial, incineration, lighting, mining, metallurgical, municipal, mechanical, marine, naval, powerplant, plumbing, petroleum, plastics, radio, railroad, sanitary, structural, testing, topographic, transportation, tunnel, tool-designing, telephone, traffic, underpinning, ventilating, valuation, water works and welding. All of these are presumed to belong to the same profession! — to have the same license, and to have the same interests! They can, however, be no more considered an existing unity, just because they all plan and compute, than we could throw the entire zoological creation into one happy family, merely because in the dim past we all emanated from the same cell. Had the medical profession followed the same system, it would

have promulgated one license to include the curing of all ills of mankind and the animal kingdom. As it is, the medical profession is subdivided into separate professions such as doctor of medicine, doctor of dental science, chiropractors, chiropodists, osteopaths, homeopaths and veterinarians.

The result of our chaotic amalgamation of groups without salient interests in common is that engineers as engineers, and as differentiated from employees in industry, are not the group that brings about the introduction of new ideas; for whatever new methods, new designs and innovations are brought out for the benefit of society, even though now developed by individual engineers, are not credited to the engineering profession, but rather to the industry with which the individual engineer happens to be associated. And rightly so! For he who pays the fiddler dictates the tune, and not having the credit, the profession gradually and progressively loses the esteem of society in which they were previously held.

To cite an example. How much engineering, creative engineering, is required or is actually employed by a sanitary engineer who designs a sewage treatment plant? The Imhoff tank was designed by a non-engineer. The mechanical sedimentation and digestion tanks, aeriators, grinders, chemical feeders, chlorinators and other units were all developed by industry employing individual engineers, and not by the engineering profession as a group and only because sanitary engineers do not own and operate a research station of their own, paid for by their own membership. They therefore do not get the resulting credit and do not enjoy the esteem in which the profession would otherwise be held.

To be up to date, in order to be able to design, the engineer of today must come hat in hand to the manufacturer for his engineering information, or to the various institutes supported and maintained by the Industries in question. At first the various industries spoke to the engineer, but now, by their extensive advertising campaigns in the home magazines, they speak direct to the public, and it is not uncommon to have a client come to the engineer, with all data supplied by the manufacturer, and tell him what to do and how to assemble the various portions thereof, instead of vice-versa.

Some industries and manufacturers went one step further. Instead of offering "free" advice to prospective buyers (for which the buyers pay indirectly) to give to their engineers, they have gone the whole hog, by-passed the engineer entirely, and are giving detailed plans gratis.

"Do you intend to construct a swimming pool? Here's a set of detailed plans." All cement companies hand them out like leaflets. "Do you require an institutional sewage disposal plant? Buy our septic tanks and our engineers will design your system gratis." "Do you need an air conditioning system? We are at your service. Complete plans, specifications and a guaranteed estimate are yours for the asking." Look through any general magazine and you will find advertisement after advertisement proclaiming "Our engineers will gladly assist *builders* in post war planning." It is therefore small wonder that a client stared upon the writer, as upon a raving maniac, when he was asked a fee of six percent for planning, specifying and supervising the construction of a swimming pool!

More and more manufacturers are encroaching on the field of engineers, claiming that they do so because their competitors force them into it. Should this practice go unabated the smaller, and soon the larger, independent practicing engineers will have to fold up and go, hat in hand, looking for jobs in industry. Our professional journals are supported financially by the advertising manufacturers, hence whenever the welfare of the engineers comes to the fore, they are either silent or they take position in favor of industry as against the engineers as a professional group. During the last depression it was industry that established a minimum of forty cents an hour for a thirty hour week for engineers, being fully aware that during a crisis the minimum oftimes becomes the maximum, which forced engineers into hunger marches and labor unions. No voice was raised by the standard bearers of the profession against this shameful degradation, for there was lacking in our leadership the foresight to realize that dignity is not divisible and that if engineers in the employ of theirs fall in the esteem of the public, the entire profession before long must of necessity follow suit!

To stave off this certain approaching doom engineers must give it immediate serious study, and our leadership instead of reprinting outdated programs, must seek an expression of opinion from the rank and file of the entire profession, so as to provide remedies that will once again place the calling of engineers into a position of a dignified professional status.

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Changes in our status cannot be accomplished in one bound, but it is surely evident that, should the engineers apply themselves to the solution of their problems with half the vim and talent that they use in the solution of their daily tasks, the financial and social position of the engineer will be assured and respected in the future.

As noted under the caption of this article the opinions expressed by the Author are entirely his own and are published as such. The National Society of Professional Engineers is strongly opposed to the thesis that engineering is not a single profession and that there should exist separate laws covering various phases of the same. In fact the basis of the Professional Movement is the need for unity of engineering. This is as essential as the unity of the legal and medical professions. The American Engineer seeks to provide the opportunity for exchanging views on matters pertaining to professional, social and economic factors of engineering. Its columns are open to members of the profession. However as the official organ of the National Society and it affiliated state bodies, it must recognize the fundamental principles and policies of the Professional Engineering Movement and make clear that publication of opinion is not an endorsement unless so indicated.

Any person desiring the omitted portions of these comments may secure the same upon request to the American Engineer.

KANSAS SOCIETY OF PROFESSIONAL ENGINEERS

HOLDS INDUCTION MEETING

FLORENTINE ROOM, JAYHAWK HOTEL, TOPEKA, KANSAS

OCTOBER 6, 1944

BOARD OF DIRECTORS
Convenes Prior Thereto

Proceedings Reported And Submitted
By The Secretary—K.S.P.E.

Note: This submission of Professor Munger is published as presented with the appreciation of the American Engineer for prompt reporting.

The Florentine Room of Topeka's Jayhawk Hotel has witnessed many important gatherings, some of them of more than state-wide importance, but never in its history has it witnessed an occasion of such significance to the engineering profession of Kansas as that of October 6 when the newly organized Kansas Society of Professional Engineers gathered in special session to receive its Charter from the hands of President Harry E. Nold of the National Society of Professional Engineers. Less than one year from the formation of the first temporary organization a fully organized and actively functioning State Society, with a paid up membership of 14% of all eligibles, gathered to receive the formal recognition of the parent Society and join the ranks of those states in which the engineers are actively working to win full professional status.

More than 100 engineers and wives of engineers sat down to a roast turkey dinner that demonstrated the resourcefulness of the Jayhawk management in finding the makings of a good meal without infringement of wartime rationing regulations. Among the Members present was Engineer Bill Dyatt, President of the old Kansas Engineering Society, who had announced his intention of "going all the way" with the new Society and whose membership is typical of the close cooperation that is being developed between the new Society and the old technological-social group that has carried the banner for the last 35 years. Also present were Engineer L. V. White, President of the Kansas Section, American Society of Civil Engineers; Engineer Roy A. Seaton, Chairman of the Kansas Registration Board, and Engineer Bruce Williams, President of the Missouri Society of Professional Engineers. In short, the guest list was the natural result of the basic purpose of the new Society to work onward and upward toward higher standards and standing for engineers in the closest possible cooperation with all established organizations of engineers.

The program was in keeping with the importance and purposes of the occasion. President DeForest ("De") F. Joslin did the honors as Toastmaster in a workmanlike and earnest manner that left no doubt as to his sentiments or his sincerity He expressed the hope of all engineers that we may again soon be permitted to make use of our talents in constructive works for the benefit of humanity. "The engineer does not thrive on human misery". He hoped, none the less, that we would never attain perfection for if we ever do, what will there be left for the engineer to do?

Secretary Harold H. Munger recounted briefly the events leading up to the formation of the new Society and the reasons for the decision to proceed with the formation of a 100% professional group having national affiliations, and presented the National Society of Professional Engineers to the engineers of Kansas as the logical organization through which to carry out their purposes of establishing higher professional standards and winning greater recognition for their profession.

Secretary Edward Larson, N.S.P.E., developed the subject, "What the National Society of Professional Engineers Offers to the Professional Engineer." He paid high tribute to the work of the technical societies and organized functional groups and pointed out that while no other organization can take their place there was an unfilled gap in the line until the formation of the Professional Society. He stressed the idea that only by concentrating their efforts in a unified organization of the entire profession can engineers hope to command the respect of the public and of the law-making powers of the state and nation. The National Society of Professional Engineers is the only engineering organization in existence the requirements for admission to which are based upon the Statutes of the several states and territories and it therefore enjoys a legal position that no other organization can hope to attain. By accepting the definition of a Professional Engineer as its sole requirement for admission to membership, the Society eliminates all question of personal prejudice or preference from its requirements and thus does away with a fruitful cause of misunderstanding, dispute and wasted time and effort. "Personalities perish. The Profession goes on." Only by keeping their professional organization on a strictly legal footing can engineers hope to win such recognition as is freely accorded to Medicine and the Ministry.

President Harry E. Nold, speaking on "What the National Society of Professional Engineers Expects of the Member State Society", discussed the vital need for support for the National Society from all of the component Societies if the program of the National Society is to be successfully promoted. He stressed the need for the professional manner of handling all problems, both national and local, and offered various examples of the success of the professional approach as contrasted with the trades-

union method. He emphasized the fact that the Professional Engineer is not antagonistic to the labor-union movement but that, by reason of his peculiar and confidential relations with his client or employer, the professional man cannot conform to the established rules and customs of labor-union procedure. He urged active and aggressive work in the development of a standard schedule of fees and salaries adapted to local conditions and told somewhat of the methods used in Ohio in the development and application of such a schedule in that state. He called for support of legislation providing for uniform requirements for registration in all states, to the end that reciprocal registration may eventually become nation-wide. Finally he urged full support of the National Society's efforts to secure changes in federal laws and regulations that at present deny the engineer the recognition that is accorded to other professions.

In charging the officers with their various responsibilities he emphasized the importance of active participation in the affairs of the National Society, pointing out that, without exception, those state societies that are regularly represented at the National meetings are the ones that are most active and successful in the conduct of their local affairs.

At the close of his address President Nold presented the Charter of the new Member State Society to Engineer Charlse H. Scholer, Director of the Kansas Society and Director of the National Society. In accepting the Charter Director Scholer stated briefly and simply that "our acceptance will be expressed in acts, not words" and that he hoped that the National Society would have no cause for disappointment in the response that would be forthcoming.

The principal address of the evening was given by President Milton S. Eisenhower of Kansas State College who discussed "The Obligation of the Professional Man to Society." While not an engineer, President Eisenhower has the engineer's attitude toward the solution of complex problems. He has no faith in panaceas and "magic formulas". He says that if a solution of the present problem of this nation is to be reached it must be by the engineer's method of collecting the relevant facts and proceeding by logical steps from known facts to a solution based on reason rather than emotion. In a day when it is customary for orators to rave about the glories of democracy but to detour widely around a definite statement of what they mean by the word "democracy"; when the word has been tossed from one rabble rousing soapbox demagogue to another until its meaning has practically ceased to exist, Milton Eisenhower boldly goes back to the definition that is found in the dictionary and says that democracy is that political system in which the supreme power is retained by the people, and he warns his hearers that when the people once abdicate that power to any group, be it organized business, organized labor, or organized government, they automatically cease to be a free people. He furthermore reminds the engineers that it is a part of their civic responsibility to apply their training in logical thinking to the social and economic as well as the physical problems of the nation. When only 4% of the population have the advantage of a college or university education, it is the duty of those persons so educated to apply their training to the search for a rational solution of the multitudinous problems that have grown out of the infinitely complex inter-relationships of our highly industrialized civilization. It will be a worthwhile use of the time for any thoughtful person to read the full text of President Eisenhower's speech, which will be found on page 6 of this issue.

The Members of the Kansas Society of Professional Engineers feel that they have made a good beginning. In fact, we are sure of it, for four of our guests left applications for membership with the Secretary, and we hereby notify the older State Societies that, while we have no hope of competing with some of them in terms of total membership, if the membership is to be rated in terms of percentage of eligibles in the state, the big boys had best look to their laurels, for the state that produced Jim Lane, Wild Bill Hickok, Sockless Jerry Simpson, Carrie Nation, and General Eisenhower, can be depended upon to furnish something for the neighbors to talk about.

Board of Directors Meeting

Preceding the Induction Meeting on the evening of this date, the Board of Directors met to transact necessary business and discuss plans with President Nold and Secretary Larson of the National Society. Those present were,

President Harry E. Nold
Secretary Edward Larson
President D. F. Joslin
Secretary H. H. Munger
Director A. M. Meyers
Director Maloy Quinn
Chairman Abram Pratt

Director C. H. Scholer arrived late, having been delayed by his duties in connection with escorting the speaker of the evening, President Milton S. Eisenhower of Kansas State College.

Among items of business attended to were,

Presentation by the Secretary of eight applications for Membership.

Endorsement of the "Minnesota Resolution" concerning action of secure modification of existing rules of the N.L.R.B. that classify engineers as skilled laborers.

Endorsement of the general legislative program of the N.S.P.E., the Secretary being instructed to draft letters to all Congressmen and Senators from Kansas urging their support of legislation granting greater recognition to Professional Engineering, and opposing bills that are detrimental to the profession.

Decision to hold Second Annual Meeting on the day preceding Annual Meeting of Kansas Engineering Society and in the same town in order to facilitate attendance by engineers who are Members of both societies. Chairman Pratt, of the Committee on Program, was instructed to consult officers of K.E.S. to the end that the programs of the two Societies might be effectively integrated.

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President:

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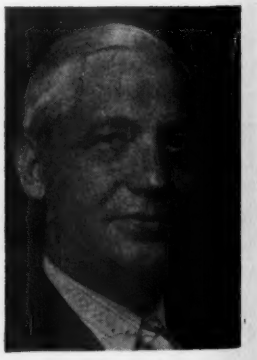
943 Mulvane
Topeka, Kansas



Director:

ENGINEER A. M. MEYERS
21st and Metropolitan St.
Kansas City, Kansas

MEMBER N.S.P.E.

THE DEVELOPMENT OF THE MOVEMENT

WHICH LED TO THE FORMATION OF

THE KANSAS SOCIETY OF PROFESSIONAL ENGINEERS

AND ITS AFFILIATION WITH N.S.P.E.

BY HAROLD H. MUNGER — *Secretary-K.S.P.E.*

Note: The courtesy and collaboration of the Secretary of the new Kansas Society of Professional Engineers have made possible this complete presentation of the story of the formation and affiliation of the Kansas Society of Professional Engineers which this issue contains.

The movement that culminated in the formation of the Kansas Society of Professional Engineers may be said to have begun in the year 1909. In that year a small group of engineers organized themselves into the Kansas Engineering Society, an organization that has been active from that day to this. The purposes of the organization were those characteristic of local engineering organizations, to promote the interests of engineers, to exchange useful information, and especially to provide a meeting place where the engineers from different parts of the state could get together and become acquainted and develop a feeling of professional unity. As is usually the case in such organizations, the requirements for admission were at first very liberal. So liberal, in fact, that truck drivers and mechanics were admitted without much question, provided only that they called themselves engineers, were employed by some engineering organization, and paid the required admission fee and dues. This condition was changed gradually until at the present time the grade of Member is closed to any but Registered Engineers. Grades of Associate Member and Junior Member are also established.

This Society promoted legislation of interest to engineers with but limited success. A registration law was enacted but it is purely optional and all attempts toward strengthening its provisions have to date been unsuccessful.

With the passing years a sentiment began to develop favoring some form of national affiliation but there was a great divergence of opinion concerning the form that such affiliation should take. The Society supported the Engineering Council, was regularly represented at its meetings and held high hopes for its development as a potent instrument for promoting the development of the professional interests of engineers. Its decline and fall were viewed with profound regret and disappointment.

The American Association of Engineers at one time had a large membership in the state but its all inclusive and indefinite scope soon were demonstrated to be ill planned for the work that was needed. It shortly ceased to be a factor in the situation.

About the year 1937 rumors began to reach Kansas of a new organization that was beginning to gain ground in the East. It was said to include all branches of the profession on terms of absolute equality. Reports differed widely as to its purposes, personnel, progress and prospects. Many said, "Just another one of those new societies". Others said, "Too many societies already. What we need is to combine about a dozen of the societies we already have". Still others, "Wrong idea. Cuts the engineer who isn't registered clear out of the picture. They can't do that to us. We are just as much engineers as anybody. Unless they take us in they'll never get to first base". And a few, "Just a bunch of soreheads. Couldn't run the old societies so they started one of their own. It'll fade in a year or two." Year by year the reports grew more persistent and more favorable. And year by year it became more evident that a union of "a dozen of the societies we already have" was simply out of the picture.

While this was happening other events strengthened the feeling that there was a pressing need for some more effective form of engineers organization. Disquieting reports were all around of unionization of engineers, either voluntary or involuntary. Other reports told of professional engineers who were being "pushed around" by men who had a little political "pull" but neither technical nor professional training or ability. As the defense program got underway such reports increased alarmingly and more and more engineers had first-hand demonstrations that convinced the most optimistic that something was definitely lacking.

Then came the Sunflower Ordnance case. Many have said that this case has been exaggerated out of all proportion to its real importance. Probably so. But it was a laboratory test. No more perfect demonstration could have been planned for the purpose of demonstrating the total futility of all of the established engineering organizations when confronted with a real crisis. All the power and prestige of the oldest and strongest of the Founder Societies availed no more against the smooth and effortless progress of the unionization program than a boy's air-rifle against a Panther tank. It was obvious to any person possessing the power of reason that some new instrumentality was needed.

This then was the situation when, in June, 1943, each of the Registered Engineers of Kansas found among his mail a circular letter, an application blank, and a booklet from the National Society of Professional Engineers. Out of 300 men, three filled out the blanks and mailed their checks to the office of the Society. These three were the nucleus around which the new State Society has developed.

(*Continued on Page* 31)

Submitted as:

ITEMS OF GENERAL INTEREST

Annual Meeting - N. S. P. E.

New York — December 1st and 2nd, 1944

Celebrating its 10th anniversary the National Society of Professional Engineers will hold its Annual Meeting at the Hotel Commodore, in the City of New York, on December 1st and 2nd. The Society returns for its tenth reunion to the scene of its inception. The original member state organizations, Connecticut, New York, New Jersey and Pennsylvania, are joinly sponsoring the meeting.

The program as of October 15th is:

Friday—December 1st

9:00 A.M.—Registration
10:00 A.M.—Board of Directors
12:30 P.M.—Luncheon—Board of Directors
2:30 P.M.—Delegates' Meeting
6:00 P.M.—Cocktail Hour
7:00 P.M.—Dinner
9:30 P.M.—Committee Meetings

Saturday — December 2nd

9:00 A.M.—Registration
10:00 A.M.—Board of Directors' Meeting
12:30 P.M.—Luncheon
3:30 P.M.—Board of Directors

The committee in charge of the Meeting consists of the following

William H. Larkin (New York)—Chairman
John W. Schallenberger (Connecticut)—Vice-Chairman
Hugh C. Clarke (New Jersey)—Vice-Chairman
Raymond M. Fuller (Pennsylvania)—Vice-Chairman
William F. Kennedy (New York)—Vice-Chairman
Martin Nelson—Chairman Publicity Committee
H. A. Johnson—Vice-Chairman Publicity Committee
Chester W. Cambell—Chairman Reception Committee
Miss Marie Reith—Chairman Ladies' Reception Committee
Simon Ryder—Chairman Hotel Committee

Among those scheduled to address the meeting on Friday night are:

Harry S. Rogers, President, SPEE & President Polytechnic Institute

Dr. deGaste Beaubein, President, The Engineering Institute of Canada.

Illinois Supreme Court

Rules Registration Air Unconstitutional

Brief On Same By
Dr. Max Suter

The Illinois State Supreme Court handed down an opinion on September 19 declaring unconstitutional the State law as a whole regulating the practice of engineering. This decree was given on a direct appeal from a decision of the Circuit Court of Sangamon County on a suit brought by one Arthur H. Krebs as a taxpayer.

Several reasons are given for declaring the law unconstitutional and some interesting fundamental principles of law are discussed in the decision. As the outcome of this suit is of importance to all engineers the main points are presented herewith using as far as possible the wordings of the decree.

It is shown that a taxpayer has the right to prosecute to enjoin the expenditure of any funds of the State for the administration of an Act whose validity is challenged, even if the taxpayer does not claim that he will be subject to the provisions of the Act, or affected by its provisions except as a taxpayer. This is the case even if the Act, from a financial standpoint, will be self-sustaining as the funds derived constitute a part of the general revenue of the State and expenditures can be made for that purpose.

The decree then states that: "An Act, to be valid, must not be vague, indefinite and uncertain. It must be complete when it leaves the legislature and be sufficiently explicit to advise everyone what his rights are under the Act and how he will be affected by its operation. Statutes which are so incomplete, vague, indefinite and uncertain that men of ordinary intelligence must necessarily guess at their meaning and differ as to their application, have uniformly been declared unconstitutional as denying due process. It must be regarded as long settled in this State that an Act, to be valid, must be complete when it leaves the legislature. If it leaves to a ministerial officer the definition of the thing to which it shall apply, such definition not being commonly known, it is invalid as an unwarranted and void delegation of legislative power to an administrative officer".

It is then shown that the law is unconstitutional with regard to all these principles

The definition of "professional engineering" as given in the Act is held to be no definition at all, as it is all inclusive and based on the requirement of the application of engineering principles and data. Yet the words "engineering and data" are not defined in the Act. They have no fixed and definite meaning. The definition is but an attempt to delegate to the Department of Registration and Education the power to determine whether a person who renders any service involving the application of engineering principles and data shall be required to secure a license under the Act. For example in the provision that the Director of the Department appoints an examining committee and this committee decides what experience in engineering work is of a "character satisfactory to the committee".

The only restriction on the Department in issuing the license is that the applicant, in the opinion of the committee, has satisfactorily met all the requirements of the Act. This is considered an unwarranted delegation of power, as nowhere in the Act are these requirements of the Act defined. The provision that an applicant must meet all the requirements of the Act are held meaningless because there are no requirements set out in the Act. Such requirements are left to the opinion and discretion of the committee.

The Court also objects that in the examination, an applicant, in the discretion of the committee, may be permitted to select from groups of questions pertinent to several branches of engineering, the group which in the opinion of the applicant most nearly covers his professional engineering experiences but then, if he passes the examination, he gets a certificate which will authorize him to engage in any activity or work included within any branch of the term "professional engineer".

The law is therefore held unconstitutional mainly because it is vague and uncertain in the provisions relating to the activities which shall and those which shall not be included in the Act and because it vests in administrative officers the discretion to determine what the law is.

The decision is of great importance for any State registration law, as the definition of professional engineering used is the one used also in the model law and in many State laws, and it is the vagueness in this definition which causes special grounds for calling the law unconstitutional. Most of the other grounds can be easily remedied in a new draft, but it will be difficult to formulate a definition of professional engineering that will satisfy

the criticism of the Court.

Ed. This is a splendid brief and should be carefully read by all engineers.

A review of the same suggests that the decision of the Court derives from three basic contentions:

(a) Lack of definitiveness of certain sections of the law.

(b) Absence of an adequate definition.

(c) Unwarranted delegation of authority to, or assumption of the same by, a Board.

The latter two contentions can be corrected by writing all the requirements into the law and confining the jurisdiction of the Board to examination of candidates in the manner and to the extent prescribed by the law. The question of definition is more difficult.

The editorial, page 5 of the July issue of the American Engineer, anticipating the above decision, submitted a suggested definition and called for comments. To date about a score have been received. In general the comments approve. One calls attention to a possible omission. Each State Society is requested to review these proposals at an early date.

Cast Your Ballot

Officers and Constitutional Amendments Call for Expression of Membership

Official ballots have been mailed to all eligible members. Do not neglect to return yours before November 25th, 1944.

Committee Nominations are:—

For President—Harry E. Nold—Ohio
For Treasurer—Leo H. Cleary—Washington, D. C.
For Vice-Presidents:

Northeastern Zone—Ritchie Lawrie—Pennsylvania

Central Zone—Bruce Williams of Missouri

Southern Zone—A. F. Mitchell—Texas

Western Zone—William L. Thrialkill—Washington (State)

Constitutional Amendments are discussed in Editorial by President Nold. See this issue.

The Engineer's Viewpoint

From The Graduate Chronicle Of British Columbia

Just how good the post-war world will be depends very largely on the number of intelligent people who take an active interest in making it good. It must remembered however, that activity without intelligence can do more harm than good.

Now is a good time for us to inform ourselves regarding issues that will be vital in the years to come. Right thinking—constructional thinking—are what the world will need. This is the kind of thinking of which every engineer should be capable. His training is such as to develop analytical exactness, relative proportions and the avoidance of emotional influence.

Human society is composed of varied selfish interests. Self-interest in itself is a virtue IF it is practised in its proper relationship to society as a whole. It is the disproportions of self-interests that cause most of the human explosions.

We believe that Trade Unions have justified their existence. They have fought for better working conditions. They have been the means of bringing into a more relative perspective Employer and Employee. If some instances the unions are inclined to overstep their usefulness and offset again that equal balance for which they have been striving. For instance, when unions use their power to dictate to the employer without rhyme or reason, then their usefulness ends. Real human progress will only be made as we apply our knowledge and our intelligence to human relationships.

This applies equally to the employer in his approach to his employees' unions. There should be no antagonism between the two. The self-interests of each is wrapped up in the other. Self-interest then becomes inter-self-interest. Neither side can afford to cripple and injure the other. We suggest that far from being enemies, they are naturally complementary one to the other. If we recognize this fact when we see immediatly that only in complete and harmonious cooperation can each succeed. Unfortunately, however, employers and employees have not, as yet, reached this stage in their relationships. There are still suspicions. There are continual autagonisms, as witness the many strikes. There is a lack of confidence and a mutual mistrust of one another's motives.

Here lies room for important work, intelligent work. It opens a field of endeavor for the engineer with a scientific mind. The engineer should take keen interest in such things. He will be a better engineer for such research. His own interests are at stake in such issues.

In the gigantic war effort of the Dominion Government, the powers that be at Ottawa have recognized the importance of frank discussions between employer and employee. Strikes and lock-outs are foolish and wasteful and create antagonisms that smoulder indefinitely.

Trade Unions, for some years, have been conducting a hard fight for the right to bargain collectively It is decidedly a democratic procedure. It can be a way that would lead to understanding and cooperation. On the surface, they won that fight in 1940. In June of that year, an Order-in-Council was passed at Ottwawa that contained the following clause—"that employees, through the officers of their trade unions or through other representatives chosen by them, should be free to negotiate with employers or repesentatives of employees' association, concerning rates of pay, hours of labor, and other working conditions, with a view to the conclusion of a collective agreement."

So far, so good. Collective bargaining has been made legal. Should it be made compulsory? The Unions are willing and anxious to introduce collective bargaining (but in many cases the employers have refused). At present, labour is doing a lot of dictating. Labour demands that all employees belong to a union. Labour believes that the Government should give preference in contracts to those firms who pay union wages and who recognize collective agreements The present static condition between employer and employee tends to such dictating, and such dictating leads to further misunderstandings. We believe collective bargaining is a sound practice but should it be backed up with compulsion? What do you believe?—that is the important thing. What do you know about it? What thought have you given to it? It is what you think of such vital issues and what you do about it after you have come to some definite conclusion that will count in the post-war world.

This is to mention just one of the many live problems of our time. You cannot escape these problems. You cannot escape the effect of decisions that are made in connection with them. That is why it is so important that you take a lively interest in them.

In the days to come there will be no room for slovenly mentality. "As a man thinketh in his heart, so is he." And as a community thinks, so is that community. We are learning today that the age-long fight for freedom is never completely won. Any slackness on our part and some of that hard won liberty is taken from us. There are basic rights upon which human society is based. We must be ever vigilant to preserve those basic rights and to apply them to the kaleidoscopic changes of modern days.

After all, the most powerful weapon of our democratic system is Public Opinion. You and I can mould public opinion. If that public opinion is based on actual knowledge, then it will be a power for good. We should, therefore, zealously seek knowledge on subjects that affect our welfare. This is particularly so as it relates to employer and employee. We will always be in one class or the other.

Armed with knowledge; inspired with a sense of duty and tempered with a desire for fair play, we can do much towards the building of a better world, but we must put time and effort into the job, not "leave it to George." Is it not safe to say that if the intelligent people of the so-called civilized world had put as much time and thought into the study and improvement of national and human relationships as they put into their amusements, the present war would never have taken place?

Fragments from

STATE & SOCIETY ACTIVITIES

ILLINOIS

Registration Law Unconditional

The decision of the Supreme Court in holding the existing Registration Act deficient has stirred the Illinois Society to consideration of the necessary corrections to remedy the defects. A report on the decision, prepared by Max Suter, appears elsewhere in this issue. Engineers are urged to read the same with a view to offering constructive suggestions.

INDIANA

Quoting from the September issue of the Indiana Professional Engineer:

1944 Annual Meeting

This is your preliminary notice that the Indiana Society of Professional Engineers and the Indiana Engineering Council will hold their annual joint meeting Friday and Saturday, November 17 and 18, at the Claypool Hotel, Indianapolis. Mark this on your calendar today, and plan to attend. Russell Bass and James E. Loer are co-chairmen of the committee on general arrangements. The program for the two-day meeting will be published in the October Indiana Professional Engineer.

MINNESOTA

President's Message

Since my last report on the activities of M.A.P.E., it has been gratifying to find increased interest in our problems and our plans, and closer attention paid to our two principal fields of Membership and Legislative Amendments. No one could be as close to the professional movement in Minnesota as I am without realizing what progress we are making.

During the past two months we have had district meetings at Rochester, Mankato, Duluth, Redwood Falls, Minneapolis, Little Falls and Alexandria. At a second meeting in Mankato within this period, members of the State Legislature from that district were invited, and it is significant that 80 percent of the men attended. Those legislators came away with a clearer understanding of our proposed legislative amendments. One of their suggestions was that the proposed Bill provide specifically that engineering experience in the armed forces be considered in our required four years' experience.

Generally, all district societies are recognizing the need for regularly-scheduled meetings and many are considering having one each month when travel conditions permit. In no case will they have less than one each quarter. Our recent rural meetings have been attended by approximately 80 percent of the members, which is a fine record. In one case, only one member presumably able to attend was absent.

Interest in the Twin Cities lags a little behind the record set by the rural districts, but some meetings attract 40 percent of the members. And the program chairmen are to be commended for the interesting programs they are arranging.

The last meeting in Duluth coincided with a meeting of the State Registration Board there and the members were dinner guests of the Society. Incidentally, guests at the meeting apparently were convinced of M.A.P.E.'s worthwhileness, because two applications for membership were recieved on the spot, and two others are now being completed.

We wish that all our members could attend a Council meeting, because in one of those all-day sessions you gain a true insight into the workings of M.A.P.E. in its effort to dignify and improve the standards of practice of the profession of engineering. These meetings are held the first Saturday of alternate months for discussion of current problems, determination of policies and appro- fessional Engineers.

At our Council meeting September 9 we forwarded a recommendation to N.S.P.E. recommending that boards of examiners throughout the country include in their procedures a review of professional engineering ethics and practice. We also recommended that N.S.P.E. ask all universities having recognized engineering colleges to include in their study programs professional ethics and practice in engineering.

We also forwarded to N.S.P.E. directors a resolution asking that they give immediate consideration to the appointment of an inter-professional committee to review, propose and initiate actions for the early unification of the various branches of the engineering profession to handle general professional welfare problems. We suggested that there be an exchange of procedures and experiences with other professions, such as law and medicine, so that we may learn by each other's mistakes and profit by experiences.

In the field of Labor relations we are continuing our attention to the work of NLRB and the Fair Labor Standards Act. Our Employment Practices Committee is doing a thorough job. We are pleased to report that we have been instrumental in starting local and national action for the amendment to the Wages and Hours Division law to include professional engineers with the exempted professions of law and medicine.

Our Fee and Salary Schedule booklet has received many fine comments from employers and organizations and we have had a number of requests for extra copies. Already there are indications that it can be improved.

We are particularly pleased to announce the appointment of Dr. Richard R. Price, formerly director of the Extension Division of the University of Minnesota, as our executive secretary on a part-time basis. Dr. Price feels that what M.A.P.E. is attempting to do as a professional body is not too far removed from his own field of education. We know that having a man of such proven competence and energy will be very beneficial to our program.

Our membership now stands at 412, with an additional seven junior members. This represents more than 50 percent of the registered engineers residing in Minnesota at this time. We just issued our 500th membership card to Christian Erikstrup of Minneapolis.

All in all, we feel we are making definite progress toward the aims and objectives we feel are so vital to our growth. This progress, however, is only a measurement of the many sacrifices of personal time and energy which our individual members and committee men so generously offer.

Dr. R. R. Price Becomes Executive Secretary of M.A.P.E.

Dr. Richard R. Price of Minneapolis, former director of the Extension Division of the University of Minnesota, has been appointed Executive Secretary of the Minnesota Association of Pro- priate action.

Dr. Price is well known in the educational field, having headed the Extension Division from 1913 until his retirement in 1943. The Minnesota League of Minnesota Municipalities were developed with the help of the Minnesota Statewide High School Music Contest.

Dr. Price served as League secretary for 30 years and upon retirement was made Honorary President for Life.

He came to Minnesota from the University of Kansas, where he established both the Extension Division and League of Municipalities. In 1921 while on sabbatical leave he received his Doc-

tor's degree from Harvard. He spent a second sabbatical leave in 1929-30 in Europe.

Fall Program Well Under Way

Stepped-up program planning and enthusiasm are evident in all districts as members settle down to a busy and active Fall and Winter season. Attendance at meetings is on the increase, and program chairmen are lining up topics of current interest to the profession. We are making definite headway in our two most important undertakings of the moment—membership and legislation. Every district is at work on its educational program relative to our proposed amendments; and where state senators and representatives have been invited in to discuss the question there has been splendid response.

Minneapolis Starts The Ball Rolling

We pay tribute to District 5 for its outstanding September meeting and for the special report that has resulted in national action. Mr. McWethy's Employment Practices Committee lined up a program which featured Paul Trimmer, discussing the NLRB; Roscoe Furber, discussing the Fair Labor Standards Act and Earl Ewald, analyzing Interprofessional Relationships. Mr. Ewald's report was so timely and so well phrased that he was asked to put it into writing. It was approved by the Council and rushed to NSPE with the recommendation that an inter-professional committee be formed. The NSPE promptly approved the suggestion and a committee is now being named.

Little Falls Considers The University

Some 20 members of District 3 gathered for an interesting meeting September 8 at Little Falls. J. S. Schmidt presided, and we are informed he expects to gain many new members from the local mining area. Unfortunately the State Office was not apprised of the meeting date far enough in advance to send a representative. We hope all districts will set up a positive meeting calendar for the year so we can arrange to have a representative at each gathering. The status quo of the College of Engineering at the University of Minnesota featured the evening's discussions. The MAPE generally is concerned with the present situation in the College. What is the present rating of the Engineering School? Is it growing or not? What steps are being taken to replace the good men who made the reputation of the College? Is its budget too low to engage good men? Is there something we, as a professional organization, can do to help the College grew? The whole question has been referred to Mr. E. F. Jones' University Contact Committee for study and recommendations.

Mankato Plays Host

District 2 chalked up a 100% attendance at its September meeting, with Al Kircher presiding in the absence of Floyd Minium. Guests were some seven State senators and 10 representatives from the District. The gathering was cheered by a card from President Minium reporting he is recovering nicely from his recent illness.

An interesting discussion of the proposed legislative changes followed President Stolte's presentation of the program. It was encouraging to note that the guests were very receptive to the proposed changes. The question of veterans' preference was raised. This matter is now being considered by the State Registration Committee.

Senator Oscar Swenson, with the help of L. W. Grace, city engineer from St. Peter, presented his concern regarding steps, legislative or otherwise, that need to be taken to relieve the drainage ditch problem in the rural areas.

This meeting, so ably presided over by Mr. Kircher, was outstanding in its consideration of timely problems. T. S. Thompson, State Chairman of the Registration Committee, was among the visitors.

St. Paul Considers Civil Service

The relationship of Civil Service to professional engineers was considered at the meeting of District 4 in St. Paul, attended by some 30 members. William Klett presided. Speakers were E. J. McCubrey, state chairman of the Civil Service Committee; Robert D. Stover, acting director of the State Civil Service Commission, and Wesley McClure of Chicago, project supervisor for Public Administration Services.

Reporting on the evening, the St. Paul Pioneer Press summed it up as follows:

"Because a large proportion of Minnesota's professional engineers are now engaged in public service with divisions of county, state and federal government, they will ask for an opportunity to discuss the scope of their responsibilities with the State Civil Service Commission, now gathering information for revision of wages of state employees. It is the contention of the group that a wage scale for engineers should be based upon information available from all present sources, and not merely from the field of industrial engineering."

Good Reading in The American Engineer

We refer you to the current issue of The American Engineer for good reading on a variety of professional subjects. We were pleased that Editor Sheridan saw fit to reproduce President Stolte's article from the recent issue of Minnesota Municipalities on post-war municipal public works programs. Well worth your attention is "A Professional Creed," in which are re-stated the cardinal principles of NSPE written for the September 1936 issue of The American Engineer by D. B. Steinman, who was president in the second year of NSPE's being. The 25 tenets of guidance are as applicable today as they were then. We also suggest that you read Col. Walter H. Simpson's "A Postwar Opportunity—NSPE Proposals for Single Agency."

Highlights Of Council Meeting

The September Council Meeting was held September 9th at the Nicollet Hotel with the following men in attendance: Past President R. R. Herrmann, President-elect N. T. Rykken, Vice President R. C. Deegan, Secretary H. E. Olson, Treasurer, F. M. Shepherd; M. G. Brataas, Dist. 1; Al. Kircher, Dist. No. 2; Louis Knudsen, Dist. No. 3; H. E. Chard, No. 4; Chas. E. Doell, Dist. No. 5; Egil Wefald, Dist. No. 6; J. F. O'Meara, Dist. No. 7 and Axel Johnson, Dist. No. 8; and the following committee chairmen: Gordon Bodien, Historical; T. S. Thompson, Registration, E. J. McCubrey, Civil Service, Wm. G. Klett, Press Publicity, Editing and Publishing, A. J. Duvall, Public Policy, Ed Jones, University Contact, W. H. Wheeler, National Director and Chairman of Speakers Bureau, and Paul Trimmer, representing the Employment Practice Committee. Here are the meeting's highlights:

N. T. Rykken was named chairman of a sub-committee of the Public Policy Committee to handle inquiries from municipalities and others recommendations for consulting engineering service. A. J. Duvall and Walter Wheeler will aid him. Mr. Wheeler, Chairman of the Speakers Bureau, reported that a number of Twin City luncheon clubs had been offered speakers from our ranks.

Mr. E. F. Jones, chairman of the University Contact Committee, reported on the proposed courses of sub-professional training of veterans and pointed out that graduates would be given certificates as technical aides.

T. S. Thompson, chairman of the Registration Committee, pointed out that provision should be made in the proposed legislative amendments to take care of experience in architectural or engineering work while in the armed forces. The committee has been instructed to prepare the necessary paragraph for insertion in the amendments.

NEW JERSEY

Trustees Special Meeting

Secretary Frederick D. Braun has transmitted a copy of the minutes of the last meeting of the Board of Trustees. Excerpts therefrom follow:

The Board went on record in favor of Resolution No. 1 of the Minnesota Association of Professional Engineers adopted by the NSPE Board of Directors meetings in Milwaukee, Wis., May 26, 1944. This Resolution reads as follows:

"Whereas, it is very important to the welfare of Professional Engineers that the members of the profession adopt and use a single title which is distinctive and exclusive and which will clear up the confusion that has resulted from the use of a great variety of monikers coupled with the word Engineer."

"Now, Therefore Be It Resolved, that the National Society of Professional Engineers propose and urge that its members, and

all licensed Professional Engineers, adopt and use the single title on stationery and elsewhere of 'Professional Engineer'."

Resolution No. 4 of the Minnesota Association was also acted on. It reads:

"Whereas, The National Society of Professional Engineers has recently been informed by the Regional Director of the Fair Labor Standards Board in Minnesota that the Regional Directors have been requested to at once send in to the National Board any suggestions that come to them for changes or amendments in the Board rules,"

"Now, Therefore Be It Resolved, that the National Society of Professional Engineers immediately request that all State Societies contact the Regional Director of said Board in their district and advise him that this Society requests that Sec. 541.3 of the regulations be amended by adding in the sixth line thereof after the word 'medicine' the words 'or Professional Engineering'."

President Krueger was directed to write to the Regional Director in New Jersey thoughts on this.

Chairman Kramer of the Executive Secretary-Headquarters Office Committee reports that the Chapters are enthusiastically pursuing this campaign among their members. Quotas have been assigned to each Chapter and the North Jersey Chapters have the jump on the rest of the State at the present time. A state-wide goal of $10,000 has been set. Chairman Kramer's Committee will meet with certain money raising experts in New York for the purpose of organizing this campaign properly. Each Chapter member will be personally contacted during this drive. A number of our Associate Members are also taking a great interest in this drive.

"From the American Society of Civil Engineers we have learned that 30 local sections throughout the country acting in their own areas have authorized the formation of Collective Bargaining units. Only 4 units have actually been formed to date and these are in Tennessee, Arizona, Los Angeles and Seattle. In connection with the formation of the Tennessee unit, controversy has already developed with the American Federation of Labor. Eager to conclude this controversy by a hearing before the proper federal agency, the parent society has thrown its resources and legal talen behind the local unit. They have been met by "stale-mate" tactics of Labor and the actual hearing may be many months in the future. Furthermore, opposition to their engaging in collective bargaining activities has developed within the Society itself.

"Apparently the path of action is not to be flower strewn and the organization that champions the cause of the professional engineer in industry must have considerable legal and financial resources.

"We have been advised that the recent attempt of professional engineers to organize in Linden, N. J. has been defeated by the opposition of the C.I.O. Of a more encouraging nature are reports that units of professional engineers have been successfully organized in the Middle West. Your Committee wishes an opportunity to study the formation of these units and their method of organization which has withstood the tests of the National Labor Relations Board. The following pertinent thoughts seem to point the way to a recommendation:

"1. The New Jersey Society of Professional Engineers is now engaged in a membership drive. The sponsorship of a Collective Bargaining group requires a division of membership under "Management" and "Employees" headings with the latter group only eligible to participate in Collective Bargaining activities.

2. The New Jersey Society of Professional Engineers is contemplating the raising of funds for a full time Executive Secretary. A Collective Bargaining sponsorship will require legal support should Labor offer resistance to the formation of units and with the Society forced to underwrite such legal support.

3. Flushed with their recent success in Linden, it seems probable that Labor will resist any attempt on the part of the New Jersey Society of Professional Engineers to form Collective Bargaining units.

"It is recommended that the New Jersey Society of Professional Engineers abandon the thought of becoming headquarters for Collective Bargaining but that the Economic Status Committee draft procedures for the formation of units for the purpose of advising company groups who may themselves desire to organize. Your Committee is of the opinion that such action will best serve the interests of the New Jersey Engineers by removing the perils of controversy within our organization and at the same time be in a position to advise individual groups."

NEW YORK

Examination Notes

Of 132 candidates who took the June 1944 examinations for P.E. in New York State, 71 passed, 35 were conditioned in one subject, and 26 failed. The percentage passing was 54%.

At the same time, 62 candidates took the Preliminary Examinations for Engineers-in-Training. Of these, 38 passed and 24 failed. The percentage passing was 61%.

In Part I—(Structural Planning and Design)—94% of the P.E. candidates passed, and only 76% of the younger graduates passed.

In Part II—(Basic Engineering Sciences)—the relative success of the older and younger candidates was reversed, with 63% and 70% passing, respectively.

In Part III—(Professional Engineering)—taken only by the older men—62% passed.

From the start in June 1943 to date, 109 young graduates have passed the Preliminary Examinations and thereby secured their certification as Engineers-in-Training in N. Y. State.

Bronx Chapter

President John H. Knight, who has assumed the task of supplying Chapter news for publication advises that:

"An invitation was extended by the President to John J. Foody, Jack R. Miller, Benjamin Parzen, Louis Kettler, Arthur Chigar and George Adler, Bronx engineers recently licensed to practice professional engineering in the State of New York, to attend the October meeting of Bronx County Chapter. Engineers Foody, Chigar, Adler and Kettler accepted and attended the session, the last mentioned submitting his application for membership after the meeting. All were given a cordial welcome as was Engineer-in-Training Edward Levinowsky whose attendance has become quite regular.

"Considerable interest was displayed in the matter of Fees and Salaries. Chairman Henry Wolfe reported for the Economic Status Committee. It was decided that his committee should meet again shortly and invite Engineer Charles Giraud, who is a member of the State Society Committee of Fees and Salaries, to sit in with it for the purpose of coordination.

The Constitution Revisions Committee, Engineer I. A. Poles, Chairman, will meet in the near future to discuss certain minor changes to our recently amended Constitution and By-Laws. Such changes have been recommended by the State Society's Committee on Constitutional Revisions."

Erie County

The October Bulletin contains some personal (very personal) notes concerning the high lights of a recent social activity of the Chapter. It also contains a "Did You Know" column that should bring results. Quoting from further comments, the publication advises:

Don't forget your *State Education Department Registration.* The two year basis of registration is an improvement. The odd cost $1.75 for 1¾ years beginning January 1, 1945 and extending to October 1, 1947. The date has been advanced to facilitate the Roster publication.

President Norris Barnard, Vice President John Landers, are planning interesting meetings for the coming season. Plans for a joint meeting with Niagara County Chapter are being progressed.

Programs and notices for the Fall meeting of the State Society will be available soon. This meeting is to be held at the Mark Twain Hotel at Elmira. October?

Buffalo's industries are still in 100% War material production. There is no advance information about a let down or reconversion. As a matter of general opinion it is not likely that Buffalo

will experience reconversion until after Germany and Japan are both liquidated.

Past State President Arthur V. Sheridan, as Editor of our National Publication "The American Engineer" represented the National Society at a proceeding of a Sub-Committee of the "Congressional Hearing on Post-War Public Works, held recently in New York City. His speech is reprinted in the September issue, and is interesting reading.

Editor Sheridan presented the case of the Professional Engineer in a complete and in a dignified manner. His description of Public Works is incidental to the principal message of replacing economists, sociologists, etc., with Engineers and architects for the directing, planning and executing of Public Works.

Read the article, and loan your copy to friends for their enjoyment.

Niagara Chapter

Chairman Harold Hawkins of the Publicity Committee transmits the following account of an enthusiastic meeting.

The Niagara County Chapter of the New York State Society of Professional Engineers enjoyed a record breaking attendance at its recent meeting when 92 members and guests met at the Prospect House in Niagara Falls, New York Following an excellent dinner and short business meeting Test Pilot Robert O'Gorman of Bell Aircraft Corporation spoke on "Experiences of a Test Pilot." Mr. O'Gorman is a functional test pilot for the manufacturer of the new jet propulsion fighter airplane, "Airacomet." The enthusiastic audience was told of the rigors of dive testing an airplane under "blackout conditions" when a pilot's weight is multiplied eight times to force him relentlessly against his seat, to suck from his brain the blood needed for maintaining control of his plane and his life—all to prove that the engineer really had performed his job correctly. The talk was high-lighted by two movies, "Cannon on Wings" and "The Bell Helicopter." Mr. O'Gorman envisioned a new era in aviation that will come from the helicopter and jet propulsion principles that are now being pioneered in the Niagara Frontier.

Westchester County

The first meeting was attended by 30 members. The summer accumulation of business was reviewed and steam rollered. A committee consisting of Engineers Harding, Macbeth and Brady was appointed to represent the Chapter at the autumn meeting of the State Society in Elmira.

Engineer Lloyd C. Medcalf very capably substituted for the scheduled speaker in describing the history of the development of steam boilers and engines. To those of us not engaged in this field it was enlightening to hear of the progress in the design of boilers from very meager beginnings to the present state of high capacity equipment, the principal credit for which goes to engineering research.

The following engineers have been accepted for membership: Engrs. Eugene T. Cranch, 304 Eastchester Road, New Rochelle, N. Y.; G. A. Ahrling, Glenwood Gardens, Yonkers, N. Y.; Leslie L. Feher, 1 Bradford Road, Mt. Vernon, N. Y.; Joseph A. Parks, Jr., 6 Alden Place, Bronxville, N. Y.; George A. Noren, 441 South Lexington Ave., White Plains, N. Y.; Harry G. Otten, 46 Tunstall Road, Scarsdale, N. Y.; Wilson B. Snow, 11 Fairview Ave., Tuckahoe. N. Y.; S. Griffin Wise, Rockcreek and Spruce Lane, Scarsdale, N. Y.; Raymond W. Murphy, 61 Old Post Road, Rye, N. Y.

Applications for membership have also been received from: Ralph W. Cogley, Mt. Green Road, Croton-on-Hudson, N. Y.; J. Harold Flynn, 30 Albermarle Ave., New Rochelle, N. Y.; Fred U. Martelon, 20 William St., Mt. Vernon, N. Y.

Commander Arthur Benline writes us from Camp Parks, California, the 70th Construction Battalion of which Arthur is C.O. is at the replacement depot, but expects to leave soon for assignments in the Pacific. He had a note from Frank Laverty who is in France, as is also Jim Rundell, but they have not seen each other. Engineer Frommholz's 36th C.B. is also at Camp Parks. The 70th C.B. most of whose personnel is from our State was presented with the official flag of the State of New York on behalf of Public Works Commissioner Charles H. Sells.

OHIO

October Notes

The October issue of the Ohio Engineer contains, among other items, the following:

President's Letter

October 6, 1944

Fellow Engineers:

Theodore Roosevelt once said: "Every man has an obligation to devote a portion of his time and ability to the upbuilding of his profession."

The least that any engineer can do in this respect is to join his professional society and keep up his membership in it. If he can also devote a certain amount of time and energy to the affairs of the Society, he will be serving his fellow engineers and he will find for himself rich rewards in the pleasure and satisfaction of contacts with his fellow engineers and participation in the growth in importance of a great profession.

Membership in a technical engineering society does not cover this field of activity and this obligation. There is a clear distinction between the many technical engineering societies and the one professional engineering society.

The technical society is interested in only one branch of engineering and operates in the technical aspects of that branch. Such a society provides a forum for the presentation of papers, new applications of knowledge and other engineering data in the particular field of technology covered by the society. It provides the means for keeping its members up to date in the technical aspects of their practice.

The professional society, on the other hand, operates in the field of the professional activities of the engineer. It is designed to secure a unity of professional thought and action among all classes of engineers, to emphasize ethical conduct and proper practice of the profession and to build up public appreciation of engineering as a profession. It keeps close to the legislative activities which may affect the practice of the profession and the relations between the professional man and the public.

So it is important for every engineer to belong to his professional society and to recognize clearly that this does not conflict in any way with his activities in any technical engineering society.

Tom Rolph

Chapter Activities

Akron—Secretary Sauter's minutes reveal that 64 attended their September dinner meeting. Dr. C. W. Walton's talk and pictures on "The Development of the Synthetic Program" proved to be "one of the best programs of the year." Seven applications for membership were accepted and many committee reports were received.

Canton—Secretary Sperow's letter announcing the dinner meeting for September said that the Mayor of Canton was to speak on "Postwar Planning for Canton". Trustee Coldren reported at the board meeting that the Mayor, on learning that there was such an organization of Engineers, promptly appointed two engineers to his Postwar Planning Committee.

Central Ohio—Publicity Chairman Wells succeeded in getting six inches of news in the local paper about their dinner meeting attended by 65 members and guests. The speaker of the evening was Stuart Williams, Trustee of the Chapter, who is manager of the street lighting department of the Holophane Plant. His interesting subject of their War Developments was dramatically presented.

Cincinnati—The minutes of Secretary LeFeber telling of the dinner meeting attended by 41 members and guests reveal that numerous subjects were discussed. The meeting was their annual "Gripe" meeting and was declared a success.

Franklin—The October Columbus Engineer has a new editor in Joseph R. Smart. The chapter publication contained a message from the new president, an announcement of their October dinner meeting, an account of the inspection trip to the Locbourne Army Air Base and items of local interest.

Dayton—The Dayton Engineer, edited by Secretary Buck, made its first appearance in September. Their annual picnic was declared a great success. The September dinner meeting was an-

nounced with Harry L. Sain the speaker. Many personal items added color to the new publication.

Mahoning Valley—Secretary Stoll's minutes tell of an interesting meeting. Mr. Norman Sullivan of the Atlas Powder Company was the speaker. His subject of Ordnance Plants and Ordnance was about the Ravenna Ordnance Plant in particular.

Marion—Secretary Wittmer's minutes and a nine-inch newspaper clipping both tell of an interesting evening, starting with dinner for the executive committee, engineer industrialists of Marion and the speakers for the meeting. The speakers were President Rolph and National Director Kennedy. After the meeting there was a Dutch lunch. (That is a new setup on eats.)

Maumee—The minutes sent in by Secretary Sims tell of a dinner meeting on September 22. Engineer Ankrom presented the sound picture, "Keeping Them Hot" and Mr. Roller of the Ohio Power demonstrated the use of "hot line" tools.

Sandusky—O S—When a chapter with only 25 membership creates enough interest among industrialists to have 60 at a meeting with only about 15 members present it is News. That is what happened on September 20 at a dinner meeting when William Kier of the National Carbon Co. Fostoria Plant gave a short talk and showed a sound film on the carbon industry. Dr. Thomas J. Smull and Ex. Secy. Chacey gave short talks of a professional nature.

Toledo—Secretary Hallauer in announcing the September 19 meeting for the chapter regretted having to mention the death of their President. Three newspaper clippings sent in by Trustee Shultz tell of the passing of President Furman who was Toledo's water commissioner.

Zanesville—Robert W. Painter, the secretary, relates in his minutes that a dinner meeting was held on September 21. The usual business meeting preceded an informal discussion of the professional organization and the Manual, by Executive Secretary Chacey.

Board Meeting

The regular monthly dinner meeting of the Ohio Society Board of Trustees was held on the first Friday in October. There were 29 trustees and guests present After each one present had introduced himself President Rolph called on Treasurer Shank for his report. The State Society ran behind in September $387.87 leaving a balance of $6489.70 in the treasury.

Membership Chairman George Kerr produced his colored map of Ohio with those chapters having gained 22½% (¾ of 30%) shown "in the pink". So much of the state is in the blue or black George saved his blue and black crayons for next time! The Chairman also called the board's attention to the fact that 548 of our 1943 members have not paid their 1944 dues. Franklin County was holding back in a big way with 102 yet to come across with their dues for 1944.

The next committee report called for was *Professional Practices.* Chairman Pettis brought up for discussion the case of a member whose salary was lowered. After considerable discussion on the Wage Hour Law and the desire of the Government to stabilize all salaries and wages it was recommended that the local chapter make further investigation and see what can be done in behalf of the member.

Chairman Hale of *Public Relations* said he had done nothing in the way of further contacts with the Chapters since the Manual was distributed this month. The Manual contains suggestions for the Chapter Committee, said the chairman, who continued by urging all chapters to get on the radio, in the newspaper and in every way possible call the attention of the public to the value of the services of the Engineer to the community. Trustee Coldren of Anton then related how they invited the Mayor in for a talk on Postwar needs in Canton. Due to the fact that the Mayor did not even know of their professional organization he had overlooked putting an engineer on his recently appointed Postwar Planning Committee. Before the meeting adjourned the Mayor had added two engineer members to his Postwar Planning Committee. (Better invite *Your Mayor* to a meeting.)

Past President Graf in his report on *Chapter Relations* urged the officers and trustees to use the Manual of Chapter Activities. Chairman Kennedy of the *Violations Committee* reported that a suit was being prepared and that communications were still in progress concerning the Safety Engineers in the Industrial Commission. Engineer Kennedy then reported that the Cleveland Chapter had handled a local violation in newspaper advertising. The furnace company involved had advertised that they would give free engineering service, but when questioned admitted they had no licensed engineers in their employ. They promised not to use the same kind of advertising in the future. *Chairman Kennedy Would Like To Know About Any Similar Action Taken By Other Chapters.*

Violations was a long subject to the somewhat embarrassed chairman who continued by displaying an advertisement of the Fidelity and Guaranty Company. The blazing headline of this Saturday Evening Post advertisement was *"Honesty Engineering".* The board approved the letter which Chairman Jack proposed sending the company. (The letter and reply will be printed in a future issue of the Ohio Engineer.) Continuing the discussion of violations Trustee LeFeber from Cincinnati brought up that troublesome question of the Federal Government not going along on our State Fee Schedule. LeFeber also cited an appointment to the position of chief of design and plans of an unlicensed man. Methods of handling this type of situation were discussed and the Akron Chapter's successful venture in getting an Engineer appointed on the Municipal Civil Service Commission was cited as worthy of note.

Reporting for the committee on *Engineers in Industry,* Chairman Hubbard said that the brochure had been written and sent to the committee for comments. The brochure is to be the same size as our organization brochure. It will have some of the same cuts but will appeal especially to Engineers in Industry and the Management of Industry to support our Professional Movement. The brochure will be ready for distribution some time in October and will be sent to the membership in November with the Ohio Engineer.

The *Postwar Planning Committee* Chairman Fred Swineford was present and reviewed the work of his committee since its appointment in the spring. The outline of the program set up by the committee is in the Manual and Swineford said in conclusion that the State Committee is trying to act as a fountain head for local chapters, a source of information. What the local chapter committee can do depends on local conditions. The how of financing projects continues to be of much importance.

National Director Kennedy read his report of the N.S.P.E. Kentucky Board Meeting and presented three resolutions which were passed.

Executive Secretary Chacey gave a rather lengthy report including the method of distribution of the amended Registration Act which the State Society has printed ready for distribution, the presenting of complimentary copies of the new Registration Roster to those present, the reading of a letter from Herb Morris, a past secretary of the State Society, the reading of the Labor Department's reply to our resolution of last month and an account of his visit to 24 of the 27 chapters in the state during the month of September.

Under the heading of *Old Business* Trustee Campbell of Zanesville brought up the question of the State paying part or all of the expenses of the Trustees when they attend O.S.P.E. board meetings. President Rolph called on Chacey. Chacey reported to the Board that the matter had been considered. He reported that he had sent out a questionnaire to the Trustees and on the basis of the replies received had figured the cost of participation by O.S.P.E. The Executive Committee had not seen fit to make any recommendations to the Board of Trustees due to the expense involved.

Under the heading of *New Business* President Rolph presented five names for consideration of the board as a Nominating Committee. The board accepted the suggested committee: A. H. Moellenkamp, Chairman; Walter W. Graf, Lancaster; Allison C. Neff, Shaker Hts.; R. E. Teegarden, Sidney; Alfred Lefeber, Cincinnati.

Trustee Hale presented a resolution on Unionism which after some discussion was ordered given to a committee for revision. The meeting adjourned at a rather late hour after most serious consideration of many of the professional problems of today.

Dayton Chapter

Issues Bulletin

From the first issue of the Dayton Engineer the following excerpts have been selected:

At the October meeting of the Board of Directors the following applications for membership were approved: William E. Reynolds, Frederick C. Crosby and George T. Neuffer.

A former member, Herbert W. Starick, has been transferred from the Cleveland Chapter.

The Dayton Society accepts applications with the thought in mind that men have not only themselves to think of, but also the general welfare of their profession. With this thought in mind, we hope that all will enter into the activities of the Society and help to make it an instrument for good.

Trustee Hale announced that the State Convention of the O.S.P.E. will be held on February 15th and 16th at Columbus, Ohio. There will be more publicity given this, but one and all should earmark these dates if it is at all possible.

Dayton members should watch the Ohio Engineer for possible action on a general resolution pertaining to "Unionism and the Engineer". The resolution is too long to report on these pages but is a recapitulation of previous resolutions as published in several issues of the Ohio Engineer with this important addition:

"Now therefore Be It Resolved, That the Ohio Society of Professional Engineers through this further action of the Board of Trustees and the Executive Committee go on record as emphatically opposing not only the inclusion of Professional Engineers in labor-management bargaining groups—but, also, Membership or participation of Professional Engineers in any organization or movement which would in any way tend to restrict or limit the exercise of independent individual judgment."

This general resolution is a suggested idea for the Ohio Society to act upon. This resolution, if adopted, will codify all previous statements. It will provide for a general written foundation to base statements to employers explaining our Society's policies and ideals.

Mr. Lloyd Chacey met with the Board of Directors at its last meeting and gave to it several ideas on which to base some of our activities. A general outline has been published, in manual form, stating the duties of each officer and of each committee. This publication together with others to be published, will greatly help every local organization in the state. We wish to thank Mr. Chacey for the many good ideas presented.

In order that the Dayton Engineer will not be the work and ideas of one man, the Society welcomes letters from all its members. Remember that this publication is yours and do make use of it!

The following names are those of some of the men who have become registered in Ohio as Professional Engineers and are not members of the Society of Professional Engineers. Should you know anyone on this list, please contact him and tell him of our aims and ideals as an organization:

Gilbert H. Arenstein, Aircraft Radio Laboratory—Dayton
Samuel Aronoff, Globe Industries Inc.,—Dayton
Walter I. Barrows, W. I. Barrows & Assoc., Inc.—Dayton
Wm. J. Benda, Dayton Power & Light Co., Dayton
Charles S. Bennett, Miami Conservancy Bldg., Dayton
Harvey E. Berg, 1952 Burroughs Drive, Dayton
Harry Birnbaum, Wright Field, U.S. Engineers, Dayton.

We had an enjoyable visit with Capt. Dick Wharton who has recently returned from the Pacific Theater of Operations. The following address will contact him until further notice: #0-30 30 50, Crile General Hospital, Cleveland 9, Ohio.

The Treasurer is happy to report the following regarding financial status and membership:

Balance October 2, 1944 all bills paid . . .	$186.43
Unpaid Dues	12
Active Members	129

Let us attempt to attain 100% with regards to paid membership before the end of the year. Remember the statistics are printed each month in the Ohio Engineer. You can refer there for our general comparison with regards to other chapters in Ohio. Let's be at the top this next month.

We have just had returned to us, because of an incorrect forwarding address, the last publication addressed to Lt. Michael S. Genter.

The address on our list is: Lt. Michael S. Genter, Signal Corps, Camp Crowder, Mo.

Will anyone having his new address, please forward it to the Secretary.

Capt. Joseph M. Unger has been transferred to the following address: Capt. Joseph M. Unger, Headquarters, Selective Service System, Harrisburg, Pennsylvania.

Ed. Best wishes Dayton Chapter

OKLAHOMA

Annual Meeting

From the Oklahoma Builders Chapter News comes the following:

Bill Ritzhaupt, of the R. E. Mattison Company and chairman of O.S.P.E.'s Publicity Committee advises that a plan is now in progress to bring the Architects, Engineers, Manufacturers, Heavy and Building Contractors of the state together at an Annual Meeting January 13, 1945. It was agreed that the Oklahoma Builders' Chapter of A.G.C. would cooperate in these plans. In this connection, the Annual Meeting date for the Chapter has been scheduled for a noon-day (12:30) luncheon to be held at the Skirvin Hotel Green Room, Saturday, January 13, 1945. A business session will follow the luncheon. Other plans are being perfected. Plans for the evening entertainment have been put in the hands of a special committee and you will be hearing more about this joint meeting from time to time. Mr. Earl Tankersley of the Builders Construction Company, has been appointed as the A.G.C., Oklahoma Builders' Chapter, member of this Committee.

PENNSYLVANIA

Board of Registration Notes

The reappointment of the five former members of the State Registration Board has recently been announced. Because of failure to confirm the status of the membership, the said Board has been in doubt for many months.

Society Aids N.S.P.E.

State committees for the 10th Annual Meeting of the National Society have been appointed by National Vice-Chairman Ray M. Fuller:

Committee for Pennsylvania

Publicity Committee	*Ticket Committee*
	William S. Wagner
Victor J. Snyder	Philadelphia
Harrisburg	Fred W. Talbot
Chairman	Irvin H. Geiger
	S. E. Dickey
Erie	H. T. Carter
A. K. Hubbard	W. S. McFetridge
Harrisburg	Samuel Baker
Edgar T. Clapp	Gerry Lauter
Johnstown	John W. Brown
Warren H. Hinks	George A. Roos
Lehigh Valley	*Reception Committee*
G. E. Piddock	LeRoy S. Christman
Midwestern	Reading
Lawrence Spalding	Hugh M. Nelson
Northeast	George A. Rahn
Rossa McCormick	Robt. A. Haberstroh
Philadelphia	Leo G. Weller
Alfred A. Townsend	Chas. A. Imel
Pittsburgh	E. H. Edwards
F. G. Ross	William Bush
Reading	Martin Knabe
James Mast	Robert S. Chubb

TEXAS

Board Presents Annual Report

Through the courtesy of Secretary Carl L. Svensen, the American Engineer presents promptly the annual report of the State Board of Registration. The report follows:

Hon. Coke Stevenson — September 23, 1944
Governor of Texas
Austin, Texas
Sir:

Complying with Section 10 of Senate Bill No. 74, Acts Regular Session, 45th Texas Legislature, we have the honor to transmit, for the State Board of Registration for Professional Engineers, report of its transaction of the preceding year, September 1, 1943 to August 31, 1944, its Seventh Annual Report.

Respectfully submitted
J. B. Thomas, Chairman

Seventh Annual Report To The Governor
For The Period September 1, 1943-*August* 31, 1944

During the year the Board held five meetings, two regular and three called, both of the regular meetings being of three days duration. All meetings were held in Austin.

Applications for registration to practice professional engineering in the State of Texas accepted by the Board during the year numbered 232 bringing the total for the life of the Board to 6616.

The Board since its last report to you has passed on 178 applications of which 154 were voted registration and 24 granted permission to take the examination under Section 12, Subsection (b).

Of those passed to registration 109 were under the provisions of Section 12a of the Engineering Registration Act, 17 under 12b, 4 under 12c (2 on reconsideration), 2 under 18 (on reconsideration), and 22 under Section 21 (by reciprocity).

During the year the Board gave oral and written examinations to 34 applicants for registration under Section 12b, of whom 17 were passed to registration and 17 failed to pass the examinations. Of the 17 who failed, 14 did not receive a passing grade in fundamentals, and 3 failed to receive a passing grade on the Professional part of the examination. The Board is constantly seeking to improve the examination procedure by the study of results achieved and by comparison with the examinations as given by other Boards throughout the United States. In this the Board is fortunate, as the Secretary has been chairman of the committee on written examinations of the National Council of State Boards of Engineering Examiners, and has had the opportunity to review the examinations given by most of the states. He is now Chairman of the Committee on Examinations of The Society for the Promotion of Engineering Education.

During the year the Board acted on 2 requests for reconsideration from Section; voted to change the Section on 1 and to make no change on 1. It reconsidered requests for reconsideration on 5 rejected applications and voted the 5 to registration. The Board reconsidered 10 requests for change in branch and granted the changes in all cases.

One Certificate of Registration was revoked after an investigation and hearing on evidence presented as set out in Section 22 of the Act. The Attorney General's Department furnished advice and assistance in the entire proceeding.

Personal appearances before the Board were had by 25 applicants, each of which hearings was of approximately thirty minutes duration.

Reports were received by the Board during the year of the deaths of 30 registered professional engineers.

Before the Board for action at this time are a total of 125 applications of which 17 are incomplete as to reference letters (3 of these 12b's), 10 are in the 12b (examination) file, and 98 are ready for final inspection by the Board. (108 complete—98 regular and 10 12b's) (17 incomplete—14 regular and 3 12b's).

Since professional engineering registration was legalized in Texas, January 1, 1938, the Board has passed on a total of 6445 applications, of which 5625 were passed to registration (of these 34 have been reregistered under a section other than that of their original registration, and 786 were rejected.

At its regular meeting of September 23, 24 and 25, 1943, officers elected to serve the Board for the ensuing year, and they have so served, were Chairman, J. B. Thomas of Fort Worth, Vice-Chairman, E. W. Pittman of Beaumont, and Secretary, Carl L. Svensen of Lubbock. Other members of the Board who served throughout the year are J. S. Hudnall of Tyler, A. F. Mitchell of Corsicana, and Datus E. Proper of San Antonio.

* * *

The Roster carries, in addition to listings of the registered professional engineers of Texas, copies of the engineering registration Act of Texas, of the By-Laws and Rules and Regulations of the Board, of the Code of Ethics to which all applicants for professional engineering registration in this State subscribe, a list of accredited undergraduate engineering curricula of the Engineers' Council fo Professional Development, information as to reciprocal registration, and statistics as to Texas' registration.

* * *

The administration of the engineering registration law has involved consideration of various applications of the Act, alleged violations, and related legal aspects. Such matters have received most careful attention at all times. In this the Board has been aided by the advice of the Attorney General's Department which has responded promptly and fully to all requests for assistance. The Board is deeply appreciative of this cooperation.

The professional engineers of Texas have continued to evidence their interest by active cooperation in promoting compliance with the provisions of the Act to the end that real progress has been made toward providing the protection of the public which is the real purpose of engineering registration. The Board appreciates this cooperation.

The Board sincerely appreciates the continued friendly cooperation of the State Departments — which they have given since the passing of the Engineering Registration Act.

Appreciation is expressed to the office of the Auditor and Efficiency Expert for the work and suggestions in connection with the examination of the Board's records.

The Board is especially grateful to Governor Stevenson for the continuance of his interest in the work of the Board and his understanding of engineering matters which affect the welfare of the State. The Board promises to continue its efforts to give the people of Texas all protection possible under the provisions of Senate Bill 74, Acts Regular Session, 45th Texas Legislature.

Board — Society Collaboration

The following communication from the Board of Registration to the various engineering groups in Texas illustrates a spirit worthy of acceptance by all State Boards:

The Board closed its fiscal year on August 31st. At the regular meeting held on September 21, 22 and 23, 1944, officers elected for the ensuing year were: E. W. Pittman, Chairman; Datus E. Proper, San Antonio, Vice-Chairman; J. S. Hudnall, Tyler, Member; A. F. Mitchell, Corsicana, Member; J. B. Thomas, Fort Worth, Member; Carl L. Svensen, Lubbock, Member-Secretary.

The Board would appreciate being advised of the names, addresses, the terms of office of your officers. The Board is anxious to cooperate with, and have the cooperation of, all engineering and technical organizations in Texas. Inquiries sometimes come to the Secretary which he would like to refer to one or more organizations. Again there are notices and items of information which we would like to send to you and there are times when we would like your help.

We would like to suggest that notification of this office be made a part of the regular order of business for the meeting at which your election of officers is held. We will reciprocate.

Regardless of these difficult times, the changes in membership, and other obstacles, it is all the more important than ever that such organizations continue to function and to maintain contacts.

With every good wish for your success, I am

Cordially yours,
Carl L. Svensen, Secretary

The Professional Man

(*Continued from Page 9*)

casionally. Literally, all jobs in the plant are white collar jobs. Increased efficiency must be made a blessing. The release of workers in one field must be accompanied by the opening of new plants that produce goods essential to the good life we want.

Kansas State College has a very great responsibility in all this. In our research program, we are seeking to make the farmer's living more secure by helping him lower production costs and helping to find new and more dependable, high quality varieties. We are developing the same relationship with industry; our research laboratories can help solve some of the industries' knotty problems, from the utilization of agricultural wastes to the development of the facts about native materials that can be used in the building industry. We are helping agriculture and industry alike in making basic economic analyses, and when facts are established we are seeing to it that the right people have access to those facts. In our resident instruction program, we are trying to give not only a sound technical education to the young men and women of this region, but we are also trying to provide that broad general education which encouraged young people to develop sound judgments on all the great multitude of problems that concern a democratic people.

IV

All I have said boils down to this: Military victory, now all but inevitable, will do no more than give us, as free people, a new opportunity to build a society in which the American dream really comes true, not for just some of the people, but for all who are willing to work. If we are to do this by democratic methods in this age of complex technology and specialization, we must recognize completely our economic interdependence, break down the barriers between specialized groups, agree upon the facts relevant to solutions of our common problems, promote a widespread citizen understanding of these facts and proposed solutions, and then get concerted action on an American program.

It is within this whole social framework that I congratulate you, as professional engineers, for declaring boldly that you will develop a social consciousness and will devote your creative talents to the advancement of the general welfare.

As engineers, you have given us the machines of man which can destroy us or work for us. Your genius is now climaxed in the development of the jet-propelled plane which soars with such speed that sight and sound seem to contradict one another. But the genius that has yielded the machines of man has not been matched in the field of cooperative or social engineering.

I do not argue that an engineer has any greater social responsibility that any other citizen—except to this extent: Only four percent of our entire population enjoys a college education. The democracy which has endowed a small percentage of its people with higher education and with the discipline of sound reasoning has a right to expect in return a high degree of citizen-responsibility. We need enlightened, tolerant leaders in every hamlet, community, town, city, and State. These leaders need to develop across the disciplines of learning and experience the same calculating study and judgment that characterize the work of the engineer in the physical field.

And so I do not hesitate to say that engineers, along with other professional people, do have a great social responsibility in the days ahead, a responsibility that goes far beyond your own field of specialization. Every educated man and woman, who knows the scientific method, should help get the scientific method into our social affairs. Every such person should be willing to give generously of his time in promoting the kind of planning that brings farmers, workers, industrialists, managers, transporters, and all others together into a common planning that will yield broad understanding and action.

You can help see to it that we do prevent in the United States a concentration of too much power in any hands, governmental or otherwise. You can help see to it that basic social power remains in the hands of all the people who, with facts and understanding among them, can act with justice, and fairness, and tolerance.

The road of sheer specialization leads straight to a loss of democracy. The road of cooperative planning and understanding leads to a greater, democratic America.

Inter-Professional Relationships.

(*Continued from Page 10*)

objective and clear-headed on their work, but when it comes to defining their field, their professional relationships, their specific educational program, these distinguished qualities seem to vanish!"

The E.C.P.D. candidly admits that "It seems both undesirable and impracticable for E.C.P.D. to undertake to be the direct operating agency to do what must be done at the level of the individual, if a reasonable rate of progress toward Council's objectives is to be achieved." The plan conceived to remedy this deficiency promulgated by the Council through its constituent societies involves the formation of informal local groups including representatives from the various societies for exploration and study of the problems faced by the Council. There is also included an explicit invitation to other local engineering groups and interested organizations to participate.

The National Society of Professional Engineers is presently and actively pursuing objectives parallel to those of E.C.P.D. except it is not limited as a conference to study and recommend, but is making and has made definite progress toward those goals. The basic requirement for membership in N.S.P.E., registration under state law, is the foundation upon which the definition, recognition, and ultimate raising of the status of the profession can be built. The strengthening of registration laws, the establishment of legal recognition for engineers-in-training, the preparation of codes of ethics and fee and salary schedules are among the many concrete activities upon which N.S.P.E. and its state associations have made noteworthy progress. The foundations, lines of attack, and the form of organization follow clsely those of the medical and legal professions.

The important basic unit of N.S.P.E. is the local district society made up of men from every branch of the profession and, incidentally, men who are also members of the various constituent societies under E.C.P.D. In N.S.P.E. is provided a direct channel thru state societies to the national group through which the ideas of the local groups can quickly and effectively be coordinated and translated into unified action. The plan promulgated by E.C.P.D. recognized the necessity of an organization exactly like N.S.P.E. Is it not logical that the local district societies of N.S.P.E. should cooperate with E.C.P.D. by initiating the formation of local conferences through which unified action can be realized? Certainly the experience already gained by N.S.P.E. will be of great value to the group, and the support of the other groups thus given to N.S.P.E. will strengthen its position.

The time for unifying the profession is here, the cry for it is plainly heard from its ranks, and the means is at hand. There are no difficult or unsurmountable obstacles; fundamentally the same goals are desired by all engineers. It is evident from the outstanding success of the medical profession that the ultimate goal for engineers should be a strong, all-inclusive professional society based on active local units to look to the common advancement and social duty of the profession in cooperation with the several technical societies which have so effectively advanced the technical arts of engineering.

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(*Continued from Page* 11)

Most states today have enacted laws requiring such engineering design to be prepared and supervised by qualified registered professional engineers. These laws are enacted to safeguard life, health and property and require that any person practicing or offering to practice the professions of engineering shall be required to submit evidence that he is qualified so to practice and shall be registered. The meaning and intent of such laws includes the design and responsible supervision of construction or operation in connection with any building wherein the safeguarding of life or health is concerned or involv

In some states these laws are enforced, in others not to any great extent. These laws are good in their intent and purpose but will be of no benefit if not conscientiously enforced. At present, I regret to say, these laws presumably enacted to protect the registered engineer, are not fully enforced, as in this state as well as others, design work is being done by persons, firms or corporations who are manufacturer's material sales agencies and contractors, many of whom are not registered engineers and in practically all cases offered gratis.

The policy and aims of the Professional Engineers Society whether National, State or Local should be to encourage the proper practice of all engineers, rather than discourage any action that might strengthen our State Registration Acts so as to protect the private practicing engineer against exploitation, unprofessional competition and restriction of rights and benefits to practice. This is a challenge for a professional engineering movement to do for the engineering profession what the Medical and Legal Associations have done for their respective professions.

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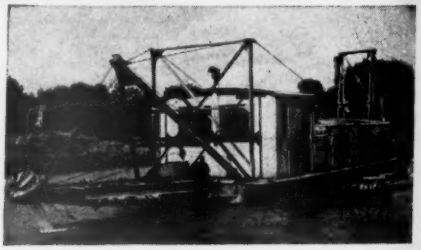

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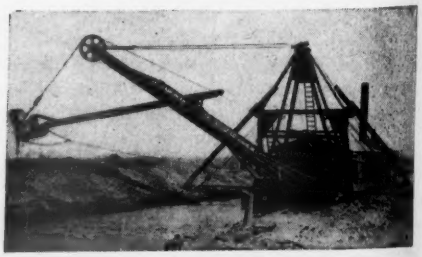

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WHAT'S NEW

And Coming In The Whirl Of Change

(News from industry — gathered by the publisher)

NEW SOUND REPRODUCER FOR PLANT BROADCASTING

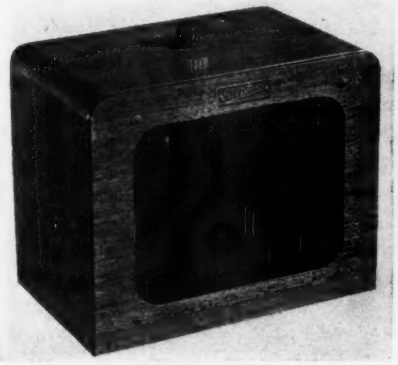
New baffle type reproducer unit used in Executone Voice-Paging and Industrial Music system provides duo-directional high fidelity reproduction of both voice and music for plant broadcasting.

This Model HF-6 speaker delivers 4 to 6 watts of output power, and is recommended for wide-angle coverage of medium and low noise level areas. Use of several such units, properly spaced in large production areas, solves the problem of uneven sound distribution. A four-step volume control, with cut-off switch, provides for individual adjustment at each unit.

In addition to its ability to reproduce a broad cycle range of sound, an important feature of this unit is its bass compensation circuit which progressively increases the bass response with each decrease in volume.

Specially engineered for use in plant broadcasting and industrial music, the HF-6 is an aid to workers in overcoming fatigue and boredom and a stimulant to greater production effort. Has 6" permanent magnet speaker with a 6 ohm voice coil enclosed in new type acoustical baffle. Suitable for wall or desk use, this hand-rubbed walnut cabinet is 9" wide, 10½" high, 6½" deep. Front and back openings have protective covering of rigid mesh faced with harmonizing grille cloth.

Manufactured by Executone Corp., 415 Lexington Avenue, New York 17, N. Y., who maintains installation and service facilities in principle cities.



Executone's New Voice-Paging Unit, Model HF-6.

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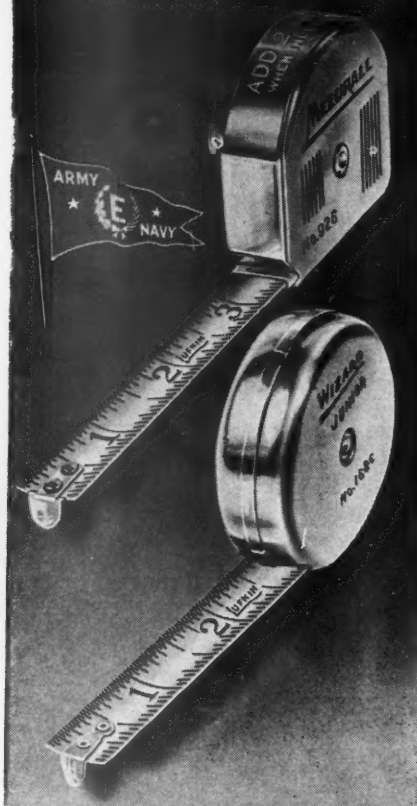

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FRIDEN CALCULATING COMPANY OPENS NEW YORK OFFICE

SAN LEANDRO, CALIF., Oct. — To meet rapidly increasing sales demands for Friden Calculators in the eastern section of the Nation, the Friden Calculating Machine Company, Inc., of San Leandro, California, will open enlarged New York City offices in the newly acquired Friden building at 336 Madison Avenue on October 19 and 20.

The new offices will house both the New York City and Eastern sales and service division as well as a service training school, said President Carl M. Friden. J. Arthur Russell is New York City agency manager, and Larry Taylor, Eastern division manager.

Company officials who will cross the continent to attend the two-day opening of the new Friden Building include President Carl M. Friden, John Lund, vice-president in charge of sales, and H. A. Richardson, advertising director.

Enlargement of the New York City and Eastern division headquarters reflects the growth of the Friden Calculating Machine Company to one of the Nation's largest producers of calculating machines. The company was organized just ten years ago. The Friden organization operates through more than 250 company-controlled sales agencies in the United States and Canada. Sales and service organizations are maintained throughout the world.

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The Development Of The Movement

(*Continued from Page* 17)

A few weeks later came word that Secretary Larson was making a trip through the West and would spend a day in Kansas. He stated that there was at the Topeka Army Air Base a man, Major F. J. Laverty, who had been active in the New York Society, and recommending that the Members-At-Large consult him. A telephone call brought a cordial response and a few evenings later a party of seven Kansas engineers gathered in the Major's office to ask questions and listen to a man who could tell them some of the things that they wanted to know about the Professional Society and its methods.

For three solid hours Major Laverty answered questions and explained the plan of organization of the organization of which he was one of the early Members. His enthusiasm and his evident understanding of the problem convinced at least some of his hearers that they had found what they were looking for. A few days later, when Secretary Larson arrived in Topeka he found a gathering of 32 Kansas engineers who wanted to learn more about this Society that seemed to be getting such a hold on the minds of those who knew most about it. An evening of discussion led to the setting up of a temporary organization, of which Engineer Harold H. Munger, of Kansas State College, Manhattan, was elected Chairman and Engineer Kenneth E. Rector, Topeka, Secretary. An organizing Committee was formed consisting of these two and the following: Engineers Lester T. Hagadorn, Salina, Charles H. Scholer, Manhattan, Maloy Quinn, Clay Center, A. M. Meyers, Kansas City, and DeForest F. Joslin, Topeka.

Only one who has taken part in such an organization campaign can ever realize what it takes to get a new organization into effective operation. A year of hectic activity, of thousands of letters, of telegrams, of telephone calls, of long rides on overcrowded trains and busses, of enthusiastic response here, of indifference there, and outright opposition in other spots; of meetings with little groups of earnest workers, of the fellows who went down into their pockets for the cash to keep things going; the first thin trickle of applications, and finally the realization that "it has gone over". In retrospect there is some resemblance to a remembered nightmare. But "it went over".

On June 3 the First Annual Meeting was held in Topeka with 32 Charter Members on the Roster, and a complete organization was accomplished. The following officers were elected: President, DeForest F. Joslin; Vice-President, George E. Nettels, Pittsburg; Secretary, Harold H. Munger, Manhattan; Treasurer, Kenneth E. Rector, Topeka; Director, A. M. Meyers, Kansas City; Director, Maloy Quinn, Clay Center; Director, Charles H. Scholer, Manhattan; National Rep., Charles H. Scholer, Manhattan.

A Constitution was adopted and application made to the National Society of Professional Engineers for admission as a Member State Society.

The new Society has lost no time in getting to work. It is incorporated under the laws of Kansas and has entered into active cooperation with the older engineering organizations in the promotion of measures of benefit to the profession. A joint committee has been formed of representatives of the Kansas Engineering Society, the Kansas Section, A.S.C.E., the County Engineers Association, the Topeka Engineer's Club and the Kansas Society of Professional Engineers to promote desirable legislation. A policy of closest cooperation with other organizations has been instituted and the earlier misunderstandings that caused distrust on the part of some members of older groups have been almost completely cleared away. The prospect for the future is very bright.

In a largely agricultural state like Kansas the number of engineers will never be large. The total number of men eligible for registration in the entire state is less than the active membership of any one of several Chapters in some of the eastern states and the size of the new Society is obviously limited to a figure that seems insignificant in comparison with such a state as (for example) Ohio. But the engineers of Kansas are determined that though they may be few they are capable of maintaining an organization that will be effective in handling their local problems. They appreciate the privilege of affiliation with the great National Society that can speak for their profession in the national field and they intend to do their full porportionate share toward making that Society a power to be respected throughout the entire nation.

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Kansas Society Of Professional Engineers

(*Continued from Page* 15)

Naming of a Nominating Committee to suggest candidates for successors to outgoing officers. The offices to be filled, and present incumbents are:

President, De F. Joslin, Topeka

Vice-President, Geo. E. Nettels, Pittsburg

Secretary, Harold H. Munger, Manhattan

Treasurer, Kenneth E. Rector, Topeka

Director, Chas. H. Scholer, Manhattan

National Representative, Chas. H. Scholer, Manhattan

Alternate National Representative, Harold H. Munger

The Committee named is,

Seth P. Kingman, Topeka, Chairman

Francis M. Carnahan, Topeka

Aubrey D. Conrow, Chanute

O. D. Henry, Emporia

Walter A. King, Topeka

V. L. Pierce, Kansas City

According to the Constitution, names of one or more candidates for each office must be filed with the Secretary in time for mailing to the Members not less than 70 days previous to the Annual Meeting. The exact date of the meeting is not yet determined, but will probably be near February 1, 1945, therefore nominations should be in the hands of the Secretary early in November.

There was some discussion of the advisability of the organization of the County Engineer Members into a Functional Group within the Society to act as a connecting link between K.S.P.E. and the County Engineers Association. No formal action was taken on this proposition.

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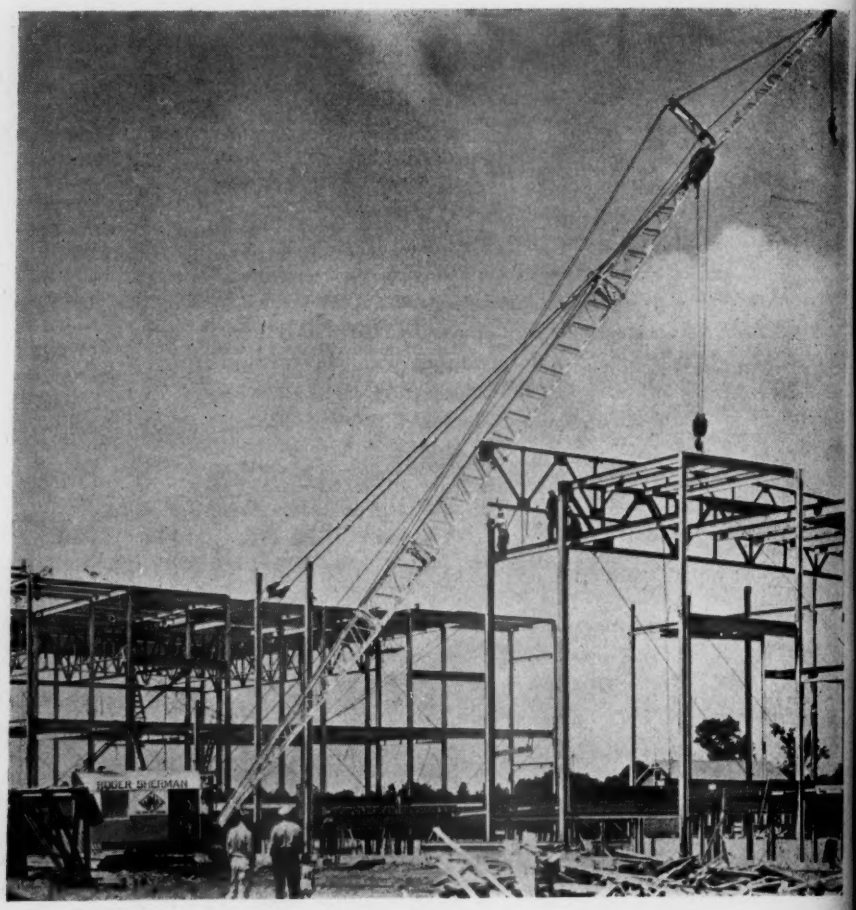

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